



A SURVEY OF ACTIVITY-BASED COSTING (ABC)  
PRACTICES WITHIN THE DEPARTMENT  
OF THE ARMY

THESIS

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AFIT/GCA/LAL/96S-9

19970108 015

DEPARTMENT OF THE AIR FORCE  
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Wright-Patterson Air Force Base, Ohio

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THESIS

Presented to the Faculty of the Graduate School of

Logistics and Acquisition Management of the

Air Force Institute of Technology

Air University

Air Education and Training Command

In Partial Fulfillment of the

Requirements for the Degree of

Master of Science in Cost Analysis

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September 1996

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### Acknowledgments

We are indebted to our thesis advisor, Lieutenant Colonel Terry Pohlen. His insight and guidance during the research effort were invaluable. He provided motivation without limiting the learning from the freedom to explore. We would like to provide special thanks to Dr. David Christensen, who helped keep the research strategically focused.

Additionally, we would both like to thank our families (SookJa Han, JinSun, JinYoung Lee, and Young, ChangMe, YoonHee Ryder), who provided support and understanding during the time consuming thesis process. Through it all, they provided encouragement and motivation to complete the thesis and the AFIT program.

Seon-Mook Lee

David S. Ryder



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Abstract

Activity-Based Costing (ABC) does not appear to have been as readily accepted within the Department of the Army as within private industry (Kehoe et al., 1995). Barely able to accomplish their missions at current resource levels, military resource managers know historically that identified efficiencies and savings often are translated into self inflicted budget and manpower cuts. Yet, it is almost universally accepted that the benefits of using Activity-Based Costing are real and obtainable, but not yet worth the effort required with the perceived risk being taken. Current conventional wisdom is for Army Resource Managers to wait and see what benefits and fates come to those who pioneer ABC.

The US Army Cost and Economic Analysis Center (CEAC) had been charged with the role of establishing policy for ABC within the Army. Wanting to base policy on successful applications, their first task is to define Army ABC, and then to find such initiatives from which to draw from. The purpose of this thesis is to find Activity-Based Costing practices within the US Army, and then to use them to discover the major dimensions of ABC in the Army environment.

This research found that the home of Activity-Based Costing is in the Army Major Commands and their subcommands. Within these commands there is much interest in ABC, but efforts are stymied by lack of policy and widespread knowledge of ABC principles. Training is perceived not as individual, but as an organizational need. Base Operations was identified as the area most suitable for ABC, while combat units the least. Overall, ABC is generally considered to be a positive tool which can be employed to help leadership better manage their operations and resources.

# A SURVEY OF ACTIVITY-BASED COSTING (ABC) PRACTICES WITHIN THE DEPARTMENT OF THE ARMY

## I. Introduction

### Executive Summary

The purpose of this research was to provide the US Army Cost and Economic Analysis Center (CEAC) with information about Activity-Based Costing (ABC) practices within the US Army. This exploratory research first identified ABC practitioner points of contacts (POCs), and then gleaned information necessary for CEAC to form Army policy. The secondary product from this research was the establishment of a communications network by which draft policy can be distributed for comment and ABC issues can be discussed.

### Background

The US Army budget will continue to be reduced annually over the next three years according to the official Army budget publication (Assistant Secretary of the Army for Financial Management and Comptroller, ASA(FM&C), 1995). The effect of loss in budget authority has produced drastic actions in the short-term such as reducing or eliminating commands, programs, and jobs throughout the Army. Long-term responses to these resource constraints include the pursuit of strategic cost reduction programs such as Activity-Based Costing (ABC) and Activity-Based Management (ABM). The goal of these initiatives is to

produce a cost conscience culture with continuous improvement of quality, time, and cost through innovation (Shields and Young, 1992).

Activity-Based Costing is a departure from traditional accounting in the way costs are recorded. Under ABC, costs, to include traditional overhead activities, are charged against activities based on units of resources used. Likewise, revenues are gained by agencies receiving reimbursement for their outputs (Campri, 1992). The difference between costs and reimbursements is the value added an organization brings to the Army. Knowledge of these cost drivers will foster better decision making and understanding of activities, both essential elements to long-term improvement of the business process (Moravec and Yoemans, 1992).

Activity-Based Costing (ABC) does not appear to have been as readily accepted within the Department of Army as within private industry (Kehoe et al., 1995). Barely able to accomplish their missions at current resource levels, military resource managers know that historically, identified efficiencies and savings will be translated into self inflicted budget and manpower cuts. Yet, it is almost universally accepted that the benefits of using Activity-Based Costing are real and obtainable, but not yet worth the effort required and the perceived risk being taken. Current conventional wisdom is for Army resource managers to wait and see what benefits and fates come to those who pioneer ABC.

#### General Issue

Military leaders are constantly in search of improving their knowledge and control of the sources of expense within their areas of responsibility. Even though ABC has been of particular interest as a tool to accomplishment this pursuit, a lack expertise and examples of

successful implementation has stifled many initiatives. It is perceived that each ABC initiative within the US Army is independently orchestrated, each with the local champion assuming a pioneer role. These pioneers, challenged by both the size of the task as well as problems in overcoming the resistance to change, have laudably had some success in achieving overall goals.

The general difficulty preventing efficient implementation of ABC is a lack of communication between those championing change. This lack of communication breeds a second problem of a deficiency of community knowledge of good ABC policies. Community knowledge could help solve systemic difficulties for each. Problems, such as marketing the ABC applications to those in their chain of command and interfacing with the established accounting systems within the Department of Defense (DoD), may have Army-wide policy solutions.

The root of these problems should not be assigned as the faults of leadership, but placed on the common denominator of a lack of awareness of concurrent ABC initiatives. Some initiatives have produced impressive results, but remain unknown to those trying to solve the same problems elsewhere. Other attempts at implementing ABC have produced nothing but frustration, with little ability to help others from falling into the same traps.

### Problem Statement

The US Army Cost and Economic Analysis Center has been charged with the role of establishing policy for ABC within the Army. A large obstacle impeding their successful composition and implementation of ABC policy is the fact that there is little known about

ABC practices within the US Army. Wanting to base policy on successful applications, their first problem is to define Army ABC, and then search for and gain cooperation from past and present local practitioners. Their second problem is to survey and properly interpret practitioner responses. Lastly, CEAC faces the problem of weighing the importance of the responses and then drawing conclusions from the research which to form policy.

### Research Objectives

The first objective of this study is to find Activity-Based Costing practices within the US Army, and then to use them to discover the major dimensions of ABC in the Army environment. The second objective of this study is to organize a communications network between ABC participants to provide a repository of best business practices, ABC policies, and case studies.

### Scope

The scope of this study is limited to Department of the Army (DA) sites with resource management responsibilities. A poll of Major Army Commands (MACOM) tenants at each army camp, post, or station had been accomplished to produce an exhaustive list of 201 potential survey sites world wide (Appendix F). Additionally, a number of Department of the Army level agencies, three well established contractors and two Department of Defense (DoD) activities (which work exclusively with Army issues) were identified as additional data sources. For credibility sake, the minimum acceptable response was set at twenty percent from the Army resource manager management community at large. To augment the resource management community, attempts were made to interview individual unit

commanders. Other targeted agencies for responses were the Army Corps of Engineer, Army Reserve, and Army National Guard organizations. Air Force, Navy, DoD, and Marine ABC efforts were also uncovered in this research, but information from these discoveries remained outside the scope of this study.

### Research Design

This study used a three stage design to address the research objectives. First, propose a comprehensive definition of a “successful Army Activity-Based Costing environment” based on current literature. Second, an exploratory inquiry and a follow up survey instrument to responders were accomplished to identify agencies using Activity-Based Costing principles. Lastly, structured interviews were used to further discover the major aspects of ABC in the Army environment.

### Sampling Plan

The initial exploratory canvas of resource managers and commanders at posts and MACOMs was based on three Department of the Army databases. Searching from the bottom was an electronic mailing of an interest letter to a list of most likely ABC users from the ASA(FM&C) resource management database. To discover a non resource management perspective, an ABC interest letter sent to the command representative found in the Internet web page of the command structures found in the Army organization index. Last, CEAC’s list (of 14) of those on the National Performance Review / Cost Accounting mailing list was explored. Responses from this canvassing were used to produce a list of points of contact from which a communications network could be made and to proceed with the discovery



phase. Based on what was learned from the initial canvassing responses, a dual path (yes or no to knowledge of ABC activity) structured electronic mail survey was sent to selected points of contact (POC). Criteria for selection were based on recommendation from or direct response interest in the canvas mailing. When more than one were recommended, the POC with a job title with the assumed greatest possibility of exposure to ABC was selected. Each of the 203 MACOM / post combinations had an "A-List" representative identified. A "B-List" was also created in case the "A-List" e-mail failed, or if a known ABC site had a non-responding "A-List" POC.

From this initial survey responses, we intended to conduct detailed follow on surveys and interviews with active ABC practitioners. Telephone surveys to those identified was impossible due to an inability to receive their return phone calls, and/or finding mutually satisfactory interview times. Travel to conduct personal interviews (and explain follow on questionnaires) was the only feasible approach to the more detailed final survey.

The questionnaires for each survey and interview protocol were developed with the assistance of the Air Force Institute of Technology (AFIT), three ABC experts found in the initial canvas of Army ABC users, and CEAC staff. Each questionnaire was designed with a maximum of twenty questions with an expected time requirement of 30 to 40 minutes.

### Summary

The thesis is sponsored by the US Army Cost and Economic Analysis Center to discover information about Activity-Based Costing within the US Army. The approach of this qualitative research is to develop an exhaustive list of major tenants at each army

installation, seek a point of contact, survey the point of contact, and report the findings in order to answer the research objectives. The organization of this thesis is in five chapters, the introduction, the literature review, the methodology, the analysis, and finally the conclusions and recommendations.

Chapter II, the literature review, provides background on Activity-Based Costing and describes the application of ABC to the Army. Within this chapter are discussions of the changing business environment, contrasts between traditional accounting and ABC, published criticisms of ABC, and finally ABC within the government. Prior to the summary, the information requirements of CEAC, the thesis sponsor, are presented. The literature review is designed to flow from the general to the specific, and then focus on the published needs of the sponsor.

Chapter III, the methodology, describes the research process from beginning to end. Beginning with research design, project planning and implementation are discussed to completely describe the steps taken to answer the management objectives. Within this chapter the research objectives, propositions, and questions and variables are presented. Also included is discussion of the investigative and measurement questions by which the research questions will be answered.

Chapter IV, the analysis, analyzes the information gained from the implementation of the methodology. Building on the data gleaned from the surveys and opinionated electronic mail, variables are defined using ethnographic techniques to support responses to the investigative questions. In accordance with the structure given in the methodology, the analysis concludes with judgments rendered on each of the research propositions.

Chapter V, the findings and recommendations, builds upon the research questions to properly answer the management and research objectives of the thesis. Based on these findings, conclusions are drawn and recommendations are given. This, the final chapter, ends with a summary of all the findings and judgments. Following Chapter V are the supporting appendices referenced in chapters one through five.

## II. Literature Review

### Overview

To properly frame the research methodology in the context of current knowledge concerning Activity-Based Costing, a comprehensive literature review of the subject is required. Chapter I provided the problem statement, research objectives, and an overview of this study's methodology. This chapter builds upon Chapter I and reviews the basic concepts found in current ABC literature in order to develop a conceptual foundation for the research. Chapter III describes research design as well as question and variable formulation.

The structure of the literature review flows from the general to the specific. The first of five parts provides a general description of the changing business environment. An increasingly more focused narrative follows by describing ABC, including benefits, then compares ABC to traditional cost accounting, criticisms of ABC, and last, ABC in the Army. A chapter summary closes the chapter.

### The Changing Business Environment

**Environment.** From 1925 until the mid-1980s, management accounting practice changed remarkably little (Kaplan, 1984 and Johnson, 1987). These stable, traditional management accounting systems have a history of producing highly aggregated cost information that is allocated to products by simplistic and arbitrary methods. For

convenience and effort conservation, these traditional methods made allocations that are often unrelated to demands made by the products on organizational resources.

As recently as 30 years ago, direct labor and materials comprised the major proportion of a manufacturing corporation's costs, and traditional cost accounting provided accurate product costs (Johnson and Kaplan, 1991:183; Pare, 1993: 125). In the last three decades, corporate product lines have become increasingly diverse and overhead has grown considerably. But in many corporations, the costs of some product related activities are unrelated to volume; overhead costs like marketing, engineering, and contracting are fixed in the short term, so these costs do not vary with the number of products which roll off an assembly line. Consequently, traditional cost accounting methods are no longer sufficient. Traditional cost accounting systems rely upon volume related bases, like direct labor hours, to allocate overhead. "Thus, conventional systems do not measure accurately the cost of resources used to design and produce products and to sell and deliver them to customers" (Cooper and Kaplan, 1992: 1).

One other environmental aspect which has had a great impact on business functions has been automation. Managers have wanted to implement ABC principles for many years, but the cost of automation to support it has often been prohibitive. With advances in technology, ABC is now generally affordable ( Christensen, 1995) . With these advances, ABC information needed for other management decisions, such as determining where costs could be reduced or where service could be improved has been made available (Pohlen, 1994: 8).

With the barriers which locked managers into simplistic assumptions removed, a revolution in accounting and controlling costs was started. ABC, which refines traditional methodologies, divides indirect costs into multiple cost pools, while activity measures trace these costs to products. A cause and effect relationship is created between activities and resource consumption. The insertion of ABC type systems can solve product costing as well as cost control problems.

**Accounting and Control of Costs.** Traditional corporate cost accounting systems trace overhead costs down to the department level, and then allocate overhead charges against products based upon some direct variable input, such as direct labor hours or machine hours. What was sought by corporations was a cost accounting system which employs multiple cost drivers, allowing a more accurate correlation between diverse resources and the activities that consume them (Cooper, 1989a: 43).

Numerous proponents of ABC argue that its methods are necessary to accurately trace overhead costs to cost objects, and thus properly account for batch- and product-level costs (Cooper, 1990), manufacturing complexity (Jones, 1991), specialty product costs and diverse business environments (Cooper and Kaplan, 1988). Many also recommend using ABC to support process improvement (Turney, 1991a) and to develop cost-effective product designs (Cooper and Turney, 1989).

Some researchers, however, caution against these new cost management techniques. Dolinsky and Vollmann (1991) warn companies that an over emphasis on product costing may overshadow the importance of using non-financial performance

measures, such as time to market, quality and customer service measures. Johnson (1992) goes a step further to argue that firms which actively pursue activity-based concepts lose sight of the customer. In addition, Schonberger (1991) questions whether there is any value at all in using activity information for cost control purposes.

**The Need for a New Cost System.** The Chief Financial Officers (CFO) Act of 1990 and the Government Performance and Results Act of 1993 established requirements for federal agencies to develop financial reporting systems that link budget expenditure to performance. The Acts directed each agency to establish performance indicators, measure outputs, service levels and outcomes, and compare actual program results to performance goals.

In 1990, President Bush signed into law the Chief Financial Officers Act (CFO). This legislation mandated changes in government financial reporting systems and the manner in which tax dollars are managed (Conyers, 1991: 24). The essence of this legislation was to address the need for government agencies to develop financial reporting systems that are linked to performance (Duquette, 1991: 35). As cited in the CFO Act,

Financial reporting practices of the federal government do not accurately disclose the current and probable future cost of operating and investment decisions, including the future need for cash or other resources, do not permit adequate comparison of actual cost among executive agencies, and do not provide the timely information required for efficient management of programs. (Duquette, 1991: 31)

More recently, the Government Performance and Results Act of 1993 required each agency to “establish performance indicators, measure outputs, service levels and

outcomes and compare actual program results to performance goals” (Tierney, 1994: 5). Together, these two legislative acts seek to expand the information provided by the government accounting system. The present fund accounting system provides input-oriented accounting information about discrete categories of expenditure. An improved accounting system would additionally need to provide output-oriented accounting information to provide a link between budget expenditure and the level and quality of service.

The General Accounting Office (GAO) also cited that DoD’s cost accounting systems were fragmented, costly to maintain, and did not provide the cost information necessary for managers to better control costs (GAO, 1995). Between the problems associated with traditional accounting, and the advent of new laws, changes had to be made to the military accounting systems.

#### Activity-Based Costing (ABC) System: A Possible Solution

ABC is a consistent, disciplined process that is necessary to the functional process improvement effort in both an analytical and evaluation role. It is also a process that requires professional judgment and creativity when applied to a transitional business process model. This creativity does not invalidate the basic integrity of the idea but is rather a necessity to bridge the gap from the traditional accounting data to the new process methodology. This idea will become more evident when ABC is compared to the traditional methods of costing. Regardless, ABC is applied with sound accounting



principles to translate cost data and provide a reliable information source upon which to base managerial decisions (DoD, 1995a:1).

Cooper and Kaplan suggested that traditional accounting systems needed to be replaced by a system that focused on providing managers with information to manage and improve activities and processes (Cooper and Kaplan, 1992). Activity-Based Costing (ABC) may provide an entirely new method for organizations to organize, allocate resources, examine processes, and manage activities.

ABC is a technique to quantitatively measure the cost and performance of activities, resources and cost objects, including when appropriate, overhead. ABC captures organization costs for the factors of production and administrative expenses and applies them to the defined activity structure. The application can be as rigorous as a definite mathematical distribution or as creative as a selective assignment using a surrogate indicator. Regardless of the method, ABC is a process of simplifying and clarifying the decisions required by the process evaluators and senior management using activity costs rather than gross allocations (DoD, 1995: 7).

**Definitions of ABC.** Coopers & Lybrand L.L.P. defines Activity-Based Costing (ABC) as “a cost management tool which identifies the activities and processes performed in an organization, determines the costs of these activities and processes, links these activities and processes to products or services and to customers, establishes performance measures, and determines activity attributes (Coopers & Lybrand L.L.P.,

1996: 4): ABC identifies costs for work being performed and links the work performed to products (Kehoe and others, 1995).”

In an ABC system, *activities consume resources*, and in turn, *activities are consumed by products*. ABC allows the manager to determine product costs by adding the costs of all activities required to manufacture or deliver a product (Cooper, 1988a: 46).

Activities are the focus of the costing process in activity-based cost systems. Costs are traced from activities to products based on the product's demand for these activities during the production process. The allocation bases used in activity based costing are thus measures of the activities performed. (Cooper, 1988a: 45)

In an ABC system, the cost of the product is the sum of the costs of all the activities performed in an organization. (Cooper, 1988a: 46)

ABC is an essential part of the functional process improvement and reengineering effort. It serves to capture quantified cost and time data and translate it into decision information. ABC measures process and activity performance, determines the cost of business process outputs, and identifies opportunities to improve process efficiency and effectiveness. Qualitative evaluation and determination alone are totally inadequate as measures of improvement. Though quality might determine “better,” it is not able to make meaningful decisions as to “cheaper” and “faster.” It is the integration of these two dimensions that is the critical decision support portion of the total process. ABC is the mechanism to integrate these two views (DoD, 1995: 7).

**Two-Dimensional ABC.** Turney and Stratton (1992) mention that modern ABC models contain two dimensions - a cost view, and a process view (Figure 1). The

presence of two dimensions extends ABC beyond product costing to the world of continuous improvement.

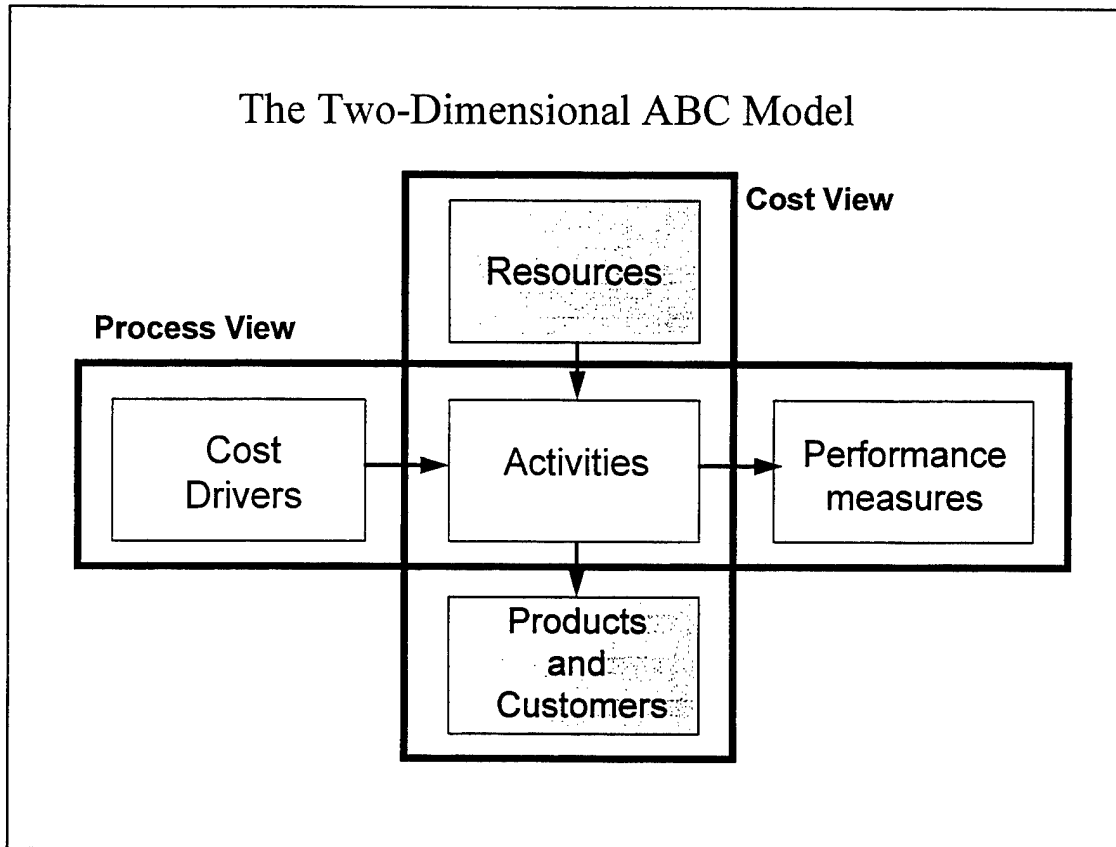


Figure 1. The Two-Dimensional ABC Model(Turney and Stratton, 1992: 47)

The process view of ABC contains information about why work is done and how well it is performed. This information is used to assess the performance of work within the organization. Information provided about each activity or process includes cost drivers, performance measures, and other information - such as cost of quality - used in the continuous improvement process. (Turney and Stratton, 1992)

Cost drivers determine the workload and effort required to perform an activity. They include factors relating to the performance of supplier activities as well as factors internal to the activity. Performance measures describe the work done and the results achieved in an activity. They include measures of cost, quality, and time.

The cost view of ABC contains information about the cost of resources, activities, and products and customers. This information is used in strategic and tactical analyses, such as evaluating customer profitability, prioritizing improvement projects, and setting cost targets. (Turney and Stratton, 1992)

ABC uses two types of drivers to assign cost to activities, outputs, and customers.

Resource drivers assign the cost of resources to activities. For example, the resource driver "percent of effort" might be used to assign the cost of people to the activities they perform. Activity drivers assign the cost of activities to products and customers. For example, the activity driver "number of purchase orders" might be used to assign the cost of the activity "preparing purchase orders" to the parts that are purchased (Turney and Stratton, 1992).

**ABC Applications.** Activity-Based Costing is applied at various levels of use across corporate America. Basically there are three ways it is applied. First, it is applied as a pure cost accounting system independent of financial reporting. Second, it could be fully integrated into the financial management systems of the corporation. Last, and most common, it is a hybrid application (Roth and Borthick, 1989:30).

The intent of ABC is to make "cost accounting" a tool for management decisions about cost efficiencies and effectiveness (Covert, 1995). In many instances management is unwilling to modify its existing financial reporting systems while the information ABC provides is desperately needed by sales departments, shop foremen, and internal service providers.

ABC may be used in an accounting system for financial reporting. ABC can provide, through more detail and greater accuracy, a more realistic picture of actual costs

than the traditional accounting systems. This is the “big picture” approach to ABC and in some cases provides more detail than required. It is time-consuming and expensive to institute but does provide more realistic information and greater insight into real costs (IEA, 1996:3). Cooper describes such systems in his article about a fully integrated cost accounting, financial accounting, Activity-based management (ABM), and Cost of Ownership system (Cooper and others, 1992:56).

ABC breaks down a product or service into activities that are necessary for providing that product or service. For the manager the advantage of the Activity-Based Costing detailed output is to give them visibility into value added and non-value activities. The next section discusses these and other benefits achieved from ABC systems.

**Benefits of ABC.** Recent applications of ABC show that some organizations fail to obtain a full range of potential benefits (Pohlen and La Londe, 1994: 8). However, there are some common benefits to the majority of organizations which have implemented ABC. In application, the two-stage assignment process enables ABC to overcome the problems encountered with using traditional volume-based allocation techniques. The approach directly addresses the management and control of overhead costs within an organization. ABC increases management visibility into how products, customers, or supply channels consume work and resources. The assignment technique recognizes different cost relationships and uses multiple cost drivers to assign costs. The non-financial information produced by the ABC model facilitates the development of

performance measures and continuous process improvement (Pohlen and La Londe, 1994: 8).

ABC is able to improve the management and control of overhead by determining the factors driving the requirement for overhead resources (Pohlen and La Londe, 1994:8). An ABC analysis will allow managers to pinpoint the activities, products, services, or customers consuming overhead resources. Managers can examine techniques to reduce or eliminate resource consumption.

ABC implementation can provide greater visibility of how different products, customers, or supply channels impact profitability. A customer profitability analysis performed by Cooper and Kaplan found 20% of the customers generated 225% of the profits, 70% of the customers hovered around the break-even point, and the remaining 10% generated a 125% loss (Cooper and Kaplan, 1991: 135). Managers can target high cost products or customers for reduction efforts, and they can use other techniques such as repricing, minimum buy quantities, or charging by service to improve profitability (Pohlen and La Londe, 1994: 9).

ABC achieves greater accuracy than traditional costing techniques by using multiple cost drivers (Cooper, 1989a: 34). Traditional techniques typically rely on one to three volume-based cost drivers to trace overhead costs to products. ABC uses multiple cost drivers to reflect different relationships occurring between activities and the resources they consume.

Performance measures appear as a logical consequence of an ABC system. Activity descriptions include financial and non-financial information (Brimson, 1991: 75). ABC also supports continuous process improvement by identifying where incremental improvements at the activity level can improve overall enterprise performance. Functional managers can use the ABC model to reengineer business processes by eliminating redundant or unnecessary tasks and optimizing resource allocations to activities adding the most value to the product or customer (D. Appleton, 1993: 56).

With all these benefits, the question is raised, why has not ABC been implemented already? The major problem with ABC is that it is “data thirsty.” Now with inexpensive, portable, and powerful computers, with advancements in scanning technologies, like bar coding, and inventory control have made ABC relatively cheap to implement. Assuming information gleaned from ABC can identify high costs, while providing insight into improving operating deficiencies, ABC can give a competitive and profit advantage to those who use it (Ali, 1994:53 ).

#### Comparing Traditional Cost Systems and ABC

**Traditional Cost Accounting.** Cost accounting operations were established to capture and divide costs to the output goods or services. In the traditional cost accounting environment, costs are classified as either direct costs or indirect. These cost accounting operations use the classic model of cost distribution which was designed around the major factors of production: direct labor, direct materials and overhead.

Business and business-like structures have relied upon the historical model of cost accounting for over 100 years (DoD, 1995).

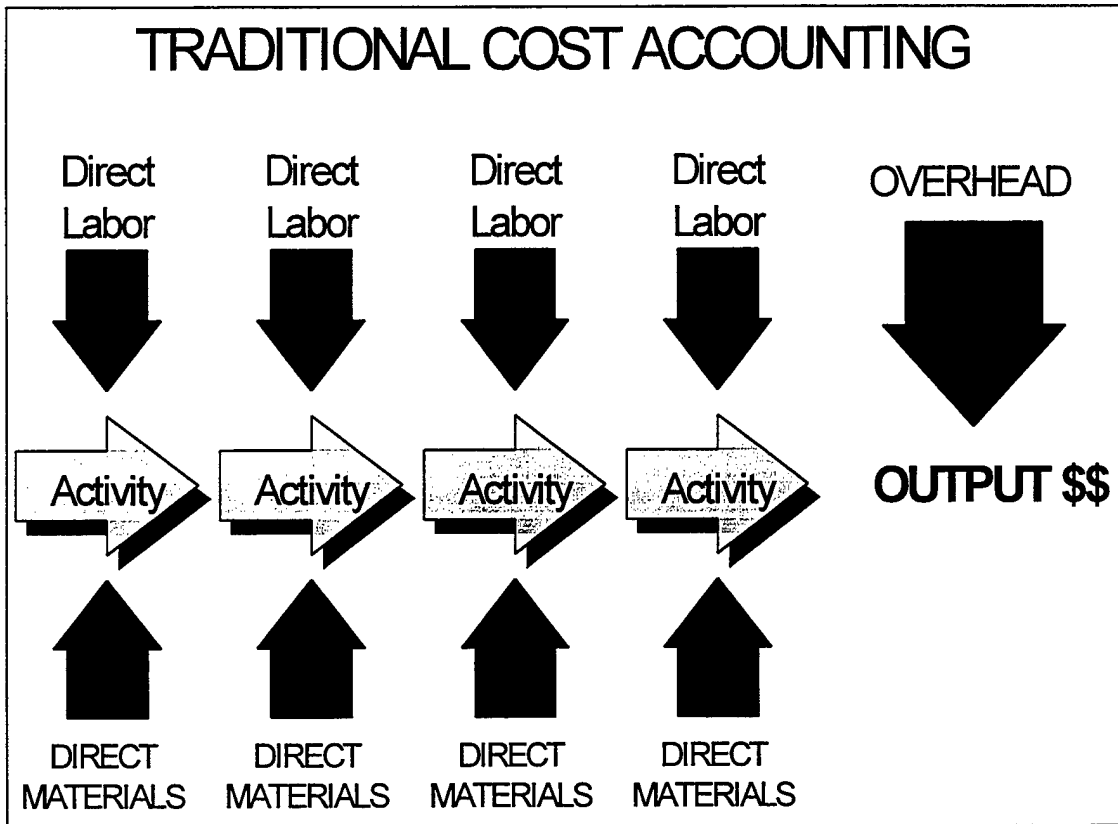


Figure 2. Traditional Cost Accounting (DoD, 1995a: 3)

Having examined the need for a new cost accounting system in business and presented activity-based cost accounting as an alternative system, this section describes the main differences between traditional and ABC accounting systems.

Traditional corporate cost accounting systems trace overhead costs down to the department level, and then allocate overhead charges against products based on some direct variable input, like direct labor hours or machine hours. This method of overhead allocation is accurate when overhead burden rates are low and the product mix in a



facility is not diverse (Cooper, 1989a:34). More recently, however, corporations produce increasingly diverse product lines and support large overheads, and traditional cost accounting methods are no longer accurate. Traditional cost accounting systems rely upon volume-related bases, like direct labor hours, to allocate overhead. An ABC system relies upon each product's or service's consumption of the activities.

Traditional cost accounting utilizes only one cost driver, usually direct labor hours, to trace the cost of overhead to the products produced. An ABC system employs multiple cost drivers to trace the amount of resources consumed to the activities consuming them. The use of multiple cost drivers allow a more accurate correlation between diverse resources and the activities that consume them (Cooper, 1989a:43). Costing at the activity and process levels makes better understanding of how activities and outputs consume overhead resources (Pohlen, 1994: 8).

**Activity-Based Cost Accounting.** Using ABC, overhead costs are traced to products and services by identifying the resources, activities, and their costs and quantities to produce output. A unit of output (a driver) is used to calculate the cost of each activity. Cost is traced to the product or service by determining how many units of output each activity consumed during any given period of time (IMA, 1993: 2-3). By defining the cause and effect relationships between activities and resources the overall view of functions is more accurate. Accuracy is gained in ABC by providing detailed information in terms of multiple cost drivers instead of using a single overhead allocation rate and base.

With the recent advent of activity accounting, it has been discovered that the traditional cost accounting methodology can create a significant difference in output cost because of the manner in which overhead costs are allocated to output rather than traced. Traditional accounting principles hold that products cause costs, in the form of machine hours or direct labor hours. However, ABC assumes that activities, “the processes or procedures that cause work to be performed in an organization” cause costs (Miller, 1990: 8). This difference in distribution can skew the ultimate price of the output and lead to poor management decisions. The following figure from the DoD ABC Guidebook will better illustrate how this difference can occur.

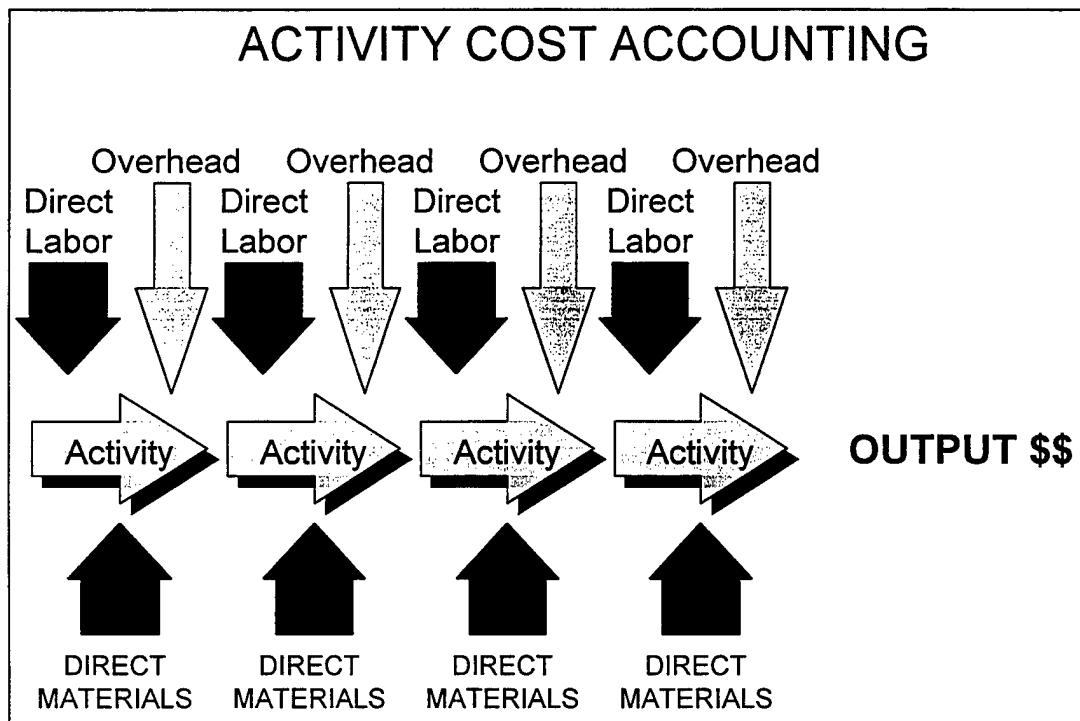


Figure 3. Activity Cost Accounting (DoD, 1995a: 7)

**Comparison Between Traditional Cost Systems and ABC.** The basic distinction between traditional cost accounting and ABC is as follows: traditional cost-accounting

techniques allocate costs to products based on attributes of a single unit. Typical attributes include the number of direct labor hours required to manufacture a unit purchase cost of merchandise resold, or number of days occupied. Allocations, therefore vary directly with the volume of units produced, cost of goods sold, or days occupied by the customer. In contrast, ABC systems focus on activities required to produce each product or provide each service based on each product's or service's consumption of the activities (Institute of Management Accountants, 1993:2).

An ABC system "measures the cost and performance of activities, resources, and cost objects. Resources are assigned to activities, then activities are assigned to cost objects based on their use. ABC recognizes the causal relationships of cost drivers to activities" (Raffish and Turney, 1991). Traditional accounting principles hold that products cause costs, in the form of machine hours or direct labor hours. However, ABC assumes that activities, "the processes or procedures that cause work to be performed in an organization," cause costs (Miller, 1990: 8).

Miller explained the major difference between the two systems. "The driving force behind the new paradigm for cost management is a focus on the outputs of the cost management system--information to manage and improve activities and processes of the business as the means to achieve reduced cost" (Miller, 1992: 45). Traditional accounting systems, on the other hand, produced information on "managing cost by means of cost-based budgets, standards, variances, and measurements established at the department level" (Miller, 1992: 41).

This section presented the main difference between two systems. Perhaps most importantly, ABC provides non-financial, process oriented information not contained in traditional accounting systems. Callahan and Marion describe three examples:

1) An ABC system identifies activities and business processes and then traces the cost of resources consumed by an activity to the outputs of that activity. As activities are the building blocks of business processes, identifying and understanding these activities is essential as a step to improve business process (Moravec and Yoemans, 1992: 32; D. Appleton, 1993: 102).

2) The ability to place accurate costs on activities and their outputs provides a clear metric for improvement, whether for determining improvement priorities in the long-term or for measuring short-term success (Moravec and Yoemans, 1992: 35; D. Appleton, 1993: 102).

3) ABC provides information regarding the amount of resources consumed across processes and activities. Understanding the relative consumption of resources allows a manager to assess the contribution each activity makes to a company's operations, which is important in controlling and reducing costs (Yoshikawa and others, 1994: 40). It is also possible to determine whether the relative cost of an activity is commensurate with the importance of the activity to its customers and management. Management can use this knowledge to prioritize activities for improvements or cost reductions through Pareto analysis stratification (Callahan and Marion, 1994: 7).

Most of the comparisons found rate ABC superior to traditional accounting. Yet criticisms of ABC exist in literature, as detailed in the following section.

## Criticisms of ABC

Criticisms of Activity-Based Costing seem to fall into two camps. There are those that agree with the concept, but see it as a “trade off” item working against other competitive weapons. Secondly, there are those who consider all such cost accounting techniques as flawed. These points of view are presented in the following sections.

**Academic Criticism of ABC.** This comment from the Lehigh University Internet School of Business Web site is typical of many criticisms. The Lehigh University mentions a controversy concerning ABC and agility. Agility is defined as ease of modification and adaptability in a changing environment. Some believe that ABC is especially well suited to support agility, and there have been contracts let to support this view. But from the perspective that has been emerging through this work, it appears that ABC is not well suited to aid decisions concerning agility (Lehigh University, 1996). ABC is more complex and time consuming than traditional costing systems. It also incurs additional efforts and costs of measurement. In addition, the full benefits of ABC can be realized only if management successfully utilizes the beneficial information it provides to reduce costs.

Of the most critical of ABC, those who espouse the “Theory of Constraints” are most adamant. In the following quote, Goldratt states another opposing approach to ABC in his book, *The Haystack Syndrome*.

Today, the entire financial community has awakened both to the fact that cost accounting is no longer applicable, and that something must be done. Unfortunately, they are not going back to the fundamentals, the financial statement logic, and

seeking there answers for these important business questions. Instead, the financial community is totally immersed in an attempt to save the obsolete solution.

'Cost drivers' and 'Activity-Based Costing' are the names of these fruitless efforts. It is evident that we can no longer allocate according to direct labor. So, their way is to say: some expenses we can allocate at the unit level, others only at the batch level, others at the product level, still others at the product group level, and some only at the company level.

Yes, the allocation can be done in this way. But for what purpose? Anyhow, we cannot aggregate them at the unit level, or even at the product level. So why play all these number games? (Goldratt, 1990: 39-40)

A third common criticism is that ABC is not a "silver bullet." There are places where the application of ABC does not make sense. Those limitations are discussed in the next section.

**ABC Limitations in the Public and Private Sectors.** Activity-Based Costing (ABC) has been widely supported as superior to conventional costing for providing cost information for a variety of uses such as product costing and long-run pricing. However, the additional data collection resources needed to obtain cost drivers and detailed activity costs may not be cost-beneficial, at least for some small- to medium-sized businesses. Traditional cost accounting information may measure resource consumption accurately enough for managers in companies with little product or process diversification (T.L. Estrin, 1994: 40).

Also, certain types of firms may adopt production techniques that lend themselves to simpler costing systems. For instance; Just-in-time (JIT) production and purchasing systems in general are well supported by backflush costing approaches (Calvasina, 1989: 41). Backflush cost accounting systems eliminate job-cost records and some general

ledger entries that are not required to support JIT production and purchasing systems, thus significantly reducing information processing costs.

Throughput accounting was designed to supply the very basic cost information required in synchronous manufacturing environments (Holmen, 1995:37). As with backflush costing, throughput accounting eliminates a significant number of detailed costing entries, such as overhead cost allocation to products, that are typically associated with more traditional costing systems.

Management accountants should be flexible enough to adapt company costing systems to satisfy the changing information needs of managers in dynamic manufacturing and service environments. The accountants of one growing manufacturing company, Bertch Cabine Mfg., Inc., recently exhibited such flexibility by deciding to change from ABC to throughput accounting to serve their internal customers better in a cost-beneficial way (Macarthur, 1996: 30).

**Barriers to ABC in the Government.** The Federal Acquisition Regulation (FAR) and Cost Accounting Standards Board (CASB) requirements preclude the use of ABC for cost reporting. The fact that funding has not been available for ABC implementation was one of the most common barriers. Several of those interviewed said that they had been given the task to do an ABC study without additional funding. (IEA, 1996:5). This quote was taken from a study commissioned by the Army Material Command. In actuality, the FAR and CASB requirements may or may not preclude the use of ABC. In fact, the Federal Accounting Standards Advisory Board (FASAB) statement #4 describes in detail

Activity-Based Costing. The significant issue is that those currently implementing ABC have published that these documents are barriers.

Collecting specific cost data and managing processes by cost calls for a paradigm shift. All levels, from top to bottom of the organization need to be involved with cost control for it to be successful (Cooper and Kaplan, 1991:131). Time is always a constraint. A comprehensive feasibility study usually requires 6 to 12 months to complete. Training on ABC principles is lacking throughout government at all levels. The Defense System Management College (DSMC) school only superficially covers ABC in its Program Manager (PM) course. However, the Navy requires ABC as a competency level for its PMs while Army does not. The Air Force Institute of Technology (AFIT) in the Air Force has included ABC in its curricula since 1987 (Christensen, 1995). The ABC process and its benefits are generally unfamiliar to Army's workforce. Without training and the use of ABC methodology, Army can not exploit the benefits of ABC (IEA, 1996).

Another barrier consistently surfaces in our research. The lack of a universal data format or system to gather and share detailed cost data not only makes ABC studies more difficult, but it causes duplication of effort in data gathering (Burk and Webster, 1994:25). A call for a defense wide ABC policy is common.

Within the Government process analysis and management activities of ABC may be implemented without changes in existing regulations; whereas, this method of handling overhead costs in formal financial reporting is not allowed by the current FAR and CASB requirements (IEA, 1995:4). In this research we have used the term ABC to



encompass both the management and reporting aspects. The following section focuses on government application of ABC.

### Activity-Based Costing in the Government

**Government Contracts.** The process of “spreading out” overhead costs does not create a serious accounting problem in the case of facilities doing 100 percent defense work. There may be inaccuracies among products, contracts, or projects. However, the Government will pay the correct amount because 100 percent of the allowable costs relate to Government work. Where problems arise for the industrial base is when a facility is doing both Government and commercial work. The spreading of overhead gives misleading answers. Costs incurred because of DoD mandated requirements and costs not required by the private sector are in practice spread across both defense and commercial volume. Existing FAR and CASB regulations make it prohibitive for a contractor to change his accounting. It is unlikely that private sector contractors, doing both Government and commercial work, will voluntarily change their accounting systems. The ABC is a methodology that will allow one to separate out DoD-related costs from commercial costs. Both the commercial sector and segments of the government sector can see the value of using an ABC approach, but again, the existing FAR and CASB requirements create a barrier (IEA, 1995:4).

**Key issues in government applications of ABC.** ABC systems cannot be successfully implemented without the wholehearted support of management accountants. It is sometimes difficult for them to accept the fact that traditional systems may be

inadequate, inaccurate, or misleading. But unless key individuals and staffs are convinced that traditional methods no longer meet senior leadership's needs, the ABC system will be doomed to failure (Institute of Management Accountants, 1993: 3).

Management accountants must work to keep the ABC project moving towards its successful completion through their enthusiasm, technical knowledge, conceptual understanding, creativity, innovation, ability to overcome real and perceived obstacles, and persistence (IMA, 1993: 3).

**ABC in Department of Defense Cost Estimating and Analysis.** The Department of Defense has recently endorsed the use of Activity-Based Costing (ABC) principles within its service business components (Harr, 1990:36). As more and more portions of DoD begin to use ABC, the cost estimation community within DoD must be able to respond appropriately.

Seeing the benefits of ABC, DoD is encouraging, but not mandating, the use of ABC where practical as one of the ways to generate efficiencies and disciplines to counter the downward trend of funding and reductions in personnel. These efforts have been voluntary due to the lack of an accounting system flexible enough to support ABC, as well as the difficulties of changing the entrenched "one-sided" accounting culture. Three main areas of impact are expected to develop. The areas of policy, acquisition, and cost accounting will have to upgrade current business practices to welcome in the benefits that ABC brings. The following section will explain the impact of ABC in each of these areas.

In order to change the culture, policies must be set in place to promote and reward the use of Activity-Based Costing principles. The cost community has been given the mandate to create the fertile environment for ABC, but is having difficulty finding talent and resources as it wages battle against the traditional governmental accounting paradigm. Once policies are set in place DoD service organizations, such as hospitals and computer services, can adopt ABC principles into their cost accounting systems to gain long term benefits. By promoting, and not mandating ABC, DoD hopefully sees users who adapt ABC convincing peer commands to follow based on benefits gained (Covert, 1995). One piece of fertile ground undergoing policy revision in search for these benefits is acquisition.

Most DoD cost analysts are employed in support of acquisition. In the task of understanding and evaluating contractor bids and pricing criteria, analysts are more and more being confronted with having to work with Activity-Based Costing. Much of acquisition cost analysis requires reports be put in traditional "rack and stack" formats, making contractors translate their competitive bidding based on ABC principles into traditional molds. Government cost analysis needs to become familiar with commercial practices to reduce cost.

The third area of change is in DoD cost accounting disciplines. With the reinvention mandate to run the Department of Defense more like a business, financial leadership knows that the current "starve and gorge" centralized control of budgets needs to become more decentralized (Berg, 1994:9). They also know subordinate commands are not equipped to do cost accounting. While a standard, yet flexible, cost accounting system remains under development, service area commanders are preparing their

organizations to become self sustaining under a DoD customer to DoD service provider transfer payment system. Activity-Based Costing is one of the tools in use to determine service fee rates (Unit Cost Handbook, 1994:33). Because commands generally do not have personnel trained in cost accounting, the burden to accomplish changes falls on our closest tradesmen, the cost analysts. These changes will only happen over time, driven by potential benefits and shifts in priorities.

As Activity-Based Costing becoming more prevalent, potential benefits are to be gained in the increased accuracy in life cycle costing and identification and understanding the sources of costs. Breaking away from traditional accounting will cause profound changes in policy, acquisition, and financial management. These changes will cause many in the cost analysis community to broaden from an acquisition skill base and to become also proficient in ABC and other cost accounting tools. Financial managers, knowing future trends, are welcoming the changes brought about by the application of Activity-Based Costing principles as one of many tools available to allow managers cope with constraints in resources (Russell, 1994:21). In summary, the impact of ABC on DoD will be profound and positive, and will enable the government to be better stewards of public funds.

Senior financial management have been planning for these profound and positive benefits to accrue since 1990. Imperative #4 of the RM2000 Vision stated the goal of "Developing state of the art, integrated, compatible systems with standard information elements that offer real-time and customer oriented decision support" (Carson and Vasey, 1990:14). As this vision is transformed into reality, steps have been taken by to

reengineer cost accounting in the Army. LTC Williams stated the intended design in *Resource Manager*, June 1993 stating, "The system must track costs, and the factors that drive those costs in terms people outside the RM community can understand ... it must make common sense" (Williams, 1993:7). Tracking direct costs had always been the easier portion of the puzzle but in 1994, the focus was shifting due to DBOF issues. New activity-based cost factors were being piloted to standardize overhead charges made by reimbursable service providers (Young, D., 1994:17). Also in 1994, the first activity-based costing pilot studies were completed (Young, R., 1994:29) which reported success in developing a more detailed basis for installation costing. Congress increased pressure in 1995 by mandating in Title 10 USC Section 2011 the capture of "total cost" not only in base operations, but also in military exercises, especially when foreign military also participate (Shelton: 1995:8). With this mandate to establish true costing, later in 1995, Mr. Robert Young, Director of CEAC, was formally given the task to establish activity-based costing policy and guidance (Appendix B).

Several issues were to be addressed in establishing policy. Specifically the issues of transfer pricing , reimbursements, full costing, (as defined by the Federal Accounting Standards Advisory Board), depreciation, capital investments, and policy concerning the costs of higher headquarters as part of overhead definition were addressed. Of concern to this thesis were managerial costing policies of Standard Service Costing (SSC), Service Based Costing (SBC) and Activity-Based Costing. In the initial investigation over 2,500 ABC activities were estimated in the seven service categories, 28 functional groupings, and 122 SBC services identified throughout the army (Covert: 1996). Though

each of the SSC, SBC, and ABC plans are currently independent of each other, over time these initiatives are designed as mutually supportive.

In February 1996, the Voluntary ABC Support Plan was approved by the ASA(FM&C). This three part plan has the objectives of controlling methodology and training, achieve army wide ABC beginning with unique applications followed by installation wide efforts, develop ABC leadership and implementation training, and develop and coordinated all guidance throughout a select army wide steering committee. As shown in Appendix A, the first part of the plan is building the framework, followed by developing ABC policies and guidance, and then sustain ABC and related SBC and SSC initiatives (Covert, 1996). Part One of the Voluntary ABC Support plan is near completion. In order to accomplish Part Two, data must be collected from the field to support policy decisions. This study is in support of that requirement.

### Summary

ABC is a powerful management tool that has evolved in response to the ineffectiveness of traditional cost accounting and cost management practices. ABC not only helps an organization accurately measure its product, process, and activity costs, but it also provides the financial and non-financial information necessary to identify opportunities for cost reductions and operating improvements. As important as it is, however, ABC is not a panacea. It is one of the important tools necessary for any organization that hopes to thrive and grow into the next century.

This literature review demonstrated the generic concept of ABC, how it works in non-profit organizations, and why it is important to Army managers. This review also demonstrated key issues in government applications of ABC, and CEAC. As noted, there was little known about grass-root ABC efforts by resource managers across the Army. The purpose of this thesis is to discover grass roots efforts currently underway and to validate or invalidate the perceived barriers in policy, training, environment, and leadership. The next chapter discusses the methodology employed to conduct a qualitative assessment of Army Activity-Based Costing to answer these questions.

### III. Methodology

#### Overview

As detailed in Chapter Two, recent legislation, like the Government Performance and Results Act, has mandated that improvements are to be made in the management of costs. In concert with these laws and senior Army leadership, the US Army Cost and Economic Center (CEAC) has developed a Voluntary Activity-Based Costing (ABC) Support Plan. Part Two of the Voluntary Support Plan contains the requirement to develop and field ABC policies and guidance (Covert, 1996). To accomplish this mission, CEAC has requested focused research to assess the extent and depth of ABC initiatives currently within the Army.

Chapter Three contains the methodology employed to conduct this research. After defining the five specific management questions CEAC desires to have answered, the scope of the research was narrowed to four corresponding research objectives. Propositions about these objectives were constructed with supporting research questions and variables defined. The following sections detail this organization, as well as variable, research question, and proposition validation.

A separate part of the research design is the data collection strategy. A step-by-step action plan by which ABC sites are located, contacted, point of contacts (POCs) identified, and the selection process for research participant is detailed. The plan is designed to accomplish two goals. First, for research validity, the data collection has to be reproducible. Second is the goal of building a database to facilitate the accomplishment of Part III goals of the CEAC ABC Support Plan.



## Research Design

This research is an exploratory search into the width and breadth of ABC activity within the US Army. Specifically, this study included a search for ABC practitioners and then surveyed them for issues and extent of ABC principles applied. The research consisted of discovery searches from three different perspectives, followed by a targeted survey of the suspected best qualified POCs at each Major Army Command (MACOM) at each Army post. For those POCs involved with extensive ABC applications, follow on interviews were conducted. The intent of the research was not to prove or disprove any preconceived notions concerning ABC, but to gather information and opinion from which CEAC may form policy. Based on this premise, this research is primarily qualitative in nature, and only gives statistics to support qualitative judgments.

The research strategy employed is the general approach outlined by Cooper and Emory for qualitative research (Cooper and Emory, 1995:118). The two-stage design will have first the exploratory phase and the second phase of experience surveys. Phase One, has the specific goals of (1) clearly defining the research problem and (2) developing the research design. Since the research is seeking to discover unknown areas, the development of research propositions cannot be crystallized until much of the exploratory research has been conducted. Phase Two will focus in on the general information requested from CEAC in light of data discovered in Phase One. When the research is concluded it is expected that the major issues concerning ABC will be identified and a database of ABC practitioners will be produced.

The research process (Figure 4) used in this study is based on Chapter Three of Cooper and Emory's Business Research Methods text (Cooper and Emory, 1995:53). The approach has three defined segments, the Project Planning, the Data Gathering, and the Analysis, Interpretation, and Reporting phases. Each of these phases have well defined products and procedures. For example, the conclusion of the Project Planning segment is the publication of the final Research Proposal. The next three paragraphs outline a general description of the research process steps, with each identified procedure having a separate section devoted to it following this section.

The first segment, project planning was initiated by CEAC management posing a question or problem which require researched. Research questions were formulated from this guidance specifically designed to answer the management requirement. Exploration of the questions, in the form of a literature review, was conducted to determine scope and to define areas which research is still needed. The research design "road map" is crafted to accomplish the research, followed by a the data collection and analysis plan. For the sponsor, a quick cost and benefit analysis was accomplished to determine if the information to be gained was justified. The end product of the Project Planning segment was the publication of the research proposal. This proposal was assessed for completeness and scope. Revisions, as required by management and thesis advisors were accomplished prior to acceptance at CEAC. As a side note, this research effort enjoyed the full support of CEAC staff assistance and managerial guidance.

The second segment, data gathering was the execution of the sampling plan within the research proposal. The nature of this study requires a robust exploration of US Army

agencies and field units. The goal of this effort was to have at least fifty respondents to surveys. This plan which includes discovery, pilot testing, and surveying, has been incorporated into this chapter under the subheading of “Implementation of Research Design.”

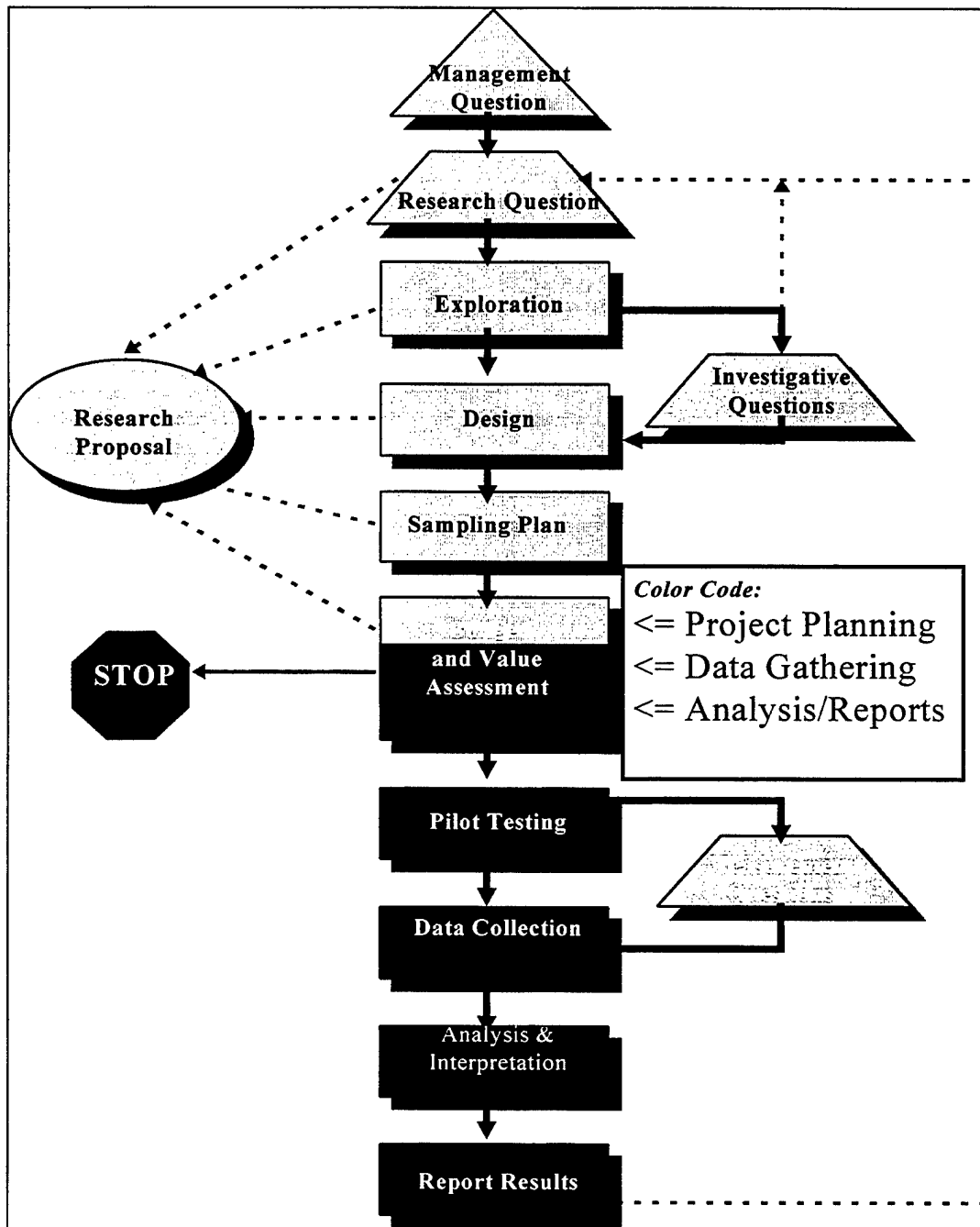


Figure 4. The Research Process (Cooper and Emory, 1995: 53)

The last segment has three parts, the analysis, the interpretation, and the report.

Data analysis will be cumulative in nature, with the answering of research questions being of primary concern. The interpretation will primarily be concerned with the integration of to the data gathered and answers to the research questions in order to answer the management questions. The fruit of this segment is the written “Data Description and Analysis” and “Findings and Conclusions” chapters of the thesis.

### Project Planning

**Management Problem.** The US Army Cost and Economic Analysis Center was officially notified on 17 August 1995 of its new mission of preparing and publishing policy for Activity-Based Costing for the US Army (Appendix B). In response, the Assistant Secretary of the Army for Financial Management and Controller, ASA(FM&C) on 20 February 1996 concerning CEAC’s plan for accomplishing this mission. This brief contained an number of initiatives (Figure 5 and Appendix A), one of which was the Voluntary Support Plan (VSP) for ABC within the Army. Approval to proceed with the support plan was received following the briefing. The plan itself consists of three parts, “Building the Frame Work”, “Develop and Field ABC Policies and Guidance”, and “Sustain ABC and Related Initiatives.” The information requirements for VSP Part One are currently being finalized, but the remaining parts of the plan have significant data needs. The management problem is to fulfill the data requirements of “Part Two - Develop and Field ABC Policies and Guidance.” The following slide, Figure 5, is from that briefing and acts as the charter for this research.

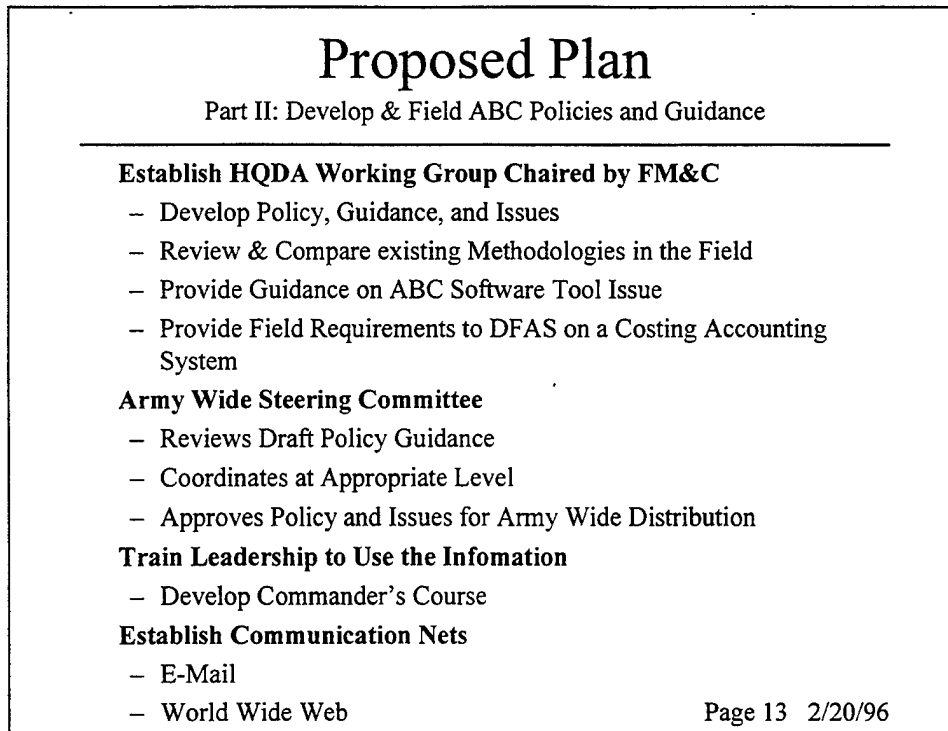


Figure 5. CEAC Support Plan for Voluntary ABC, Part II (Covert, 1996)

A number of research requirements can be drawn from the Figure 5. The research tasks commissioned by CEAC for this study are to explore as many of the data needs as possible. The scope of this study limits the extent of the research, so only a select set of four management information requests will be pursued. The items deemed most important for exploratory field research in order of priority were (1) identify developing issues, (2) describe existing methodologies used in the field, (3) identify software planned to be or currently in use, and (4) identify training needs. To accomplish these research priorities, a supporting priority of finding "who" is using ABC is required. As a secondary requirement, management has identified the need to increase CEAC use of e-mail and World Wide Web resources. This study, as a product of the data collection phase, is to expand upon the existing information base. Table 1 states these priorities as questions.

*Table 1. Management Information Priorities*

Priority One	What are the developing ABC issues within the US Army ?
Priority Two	What are the existing methodologies used in the field ?
Priority Three	What software is currently in use or planned to implement ABC ?
Priority Four	What are the US Army's ABC training needs ?
Supporting Priority	Who is using ABC and how do we communicate with them ?

**Research Hierarchy.** As stated before, the organization of this qualitative research is based on the organization of this research is Cooper and Emory's Business Research Methods text. The use of their question hierarchy is employed to keep the research focused and supporting of the purpose of the research. This hierarchy, Figure 6 (Cooper and Emory, 1995:57), shows how the management questions spawn the research questions. To answer the research questions, investigative questions are formed. Last, measurement questions, which are those that appear on the actual surveys or structured interviews, are the essential data gathering tool of the research. In reverse order, the data gathered from the measurement questions are used to answer the investigative questions. The answers to the investigative questions are integrated to answer the research questions. In the findings and conclusions, these answers to the research questions are interpreted into the information that the management questions are seeking. The following paragraphs detail each of the questions and show how they fit into this hierarchy.

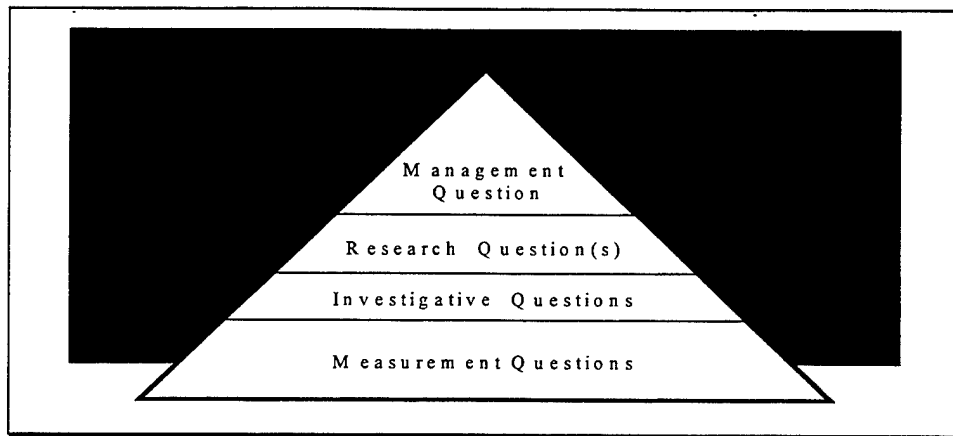


Figure 6. The Question Hierarchy (Cooper and Emory, 1995: 57)

**Research Information Flow.** Basically, once a researcher has a clear understanding of the management questions, the next task is to translate them into research questions (Cooper and Emory, 1995:55). Though there are many ways to approach the management need, research questions are fact oriented, information gathering tools designed to most directly address the core of the management questions. Precisely, a research question is the single question, or hypothesis in the quantitative research realm, that best states the objective of the research study (Cooper and Emory, 1995:57).

While answering research questions is the focus of the data gathering activity, these questions are not automatically and directly deduced from the management questions. There are two levels of research between management questions and research questions. Research objectives are formulated directly from the management questions and research propositions are directly made concerning each of the research objectives. From the research propositions come the research questions. Figure 7 shows organization and flow in this research effort.

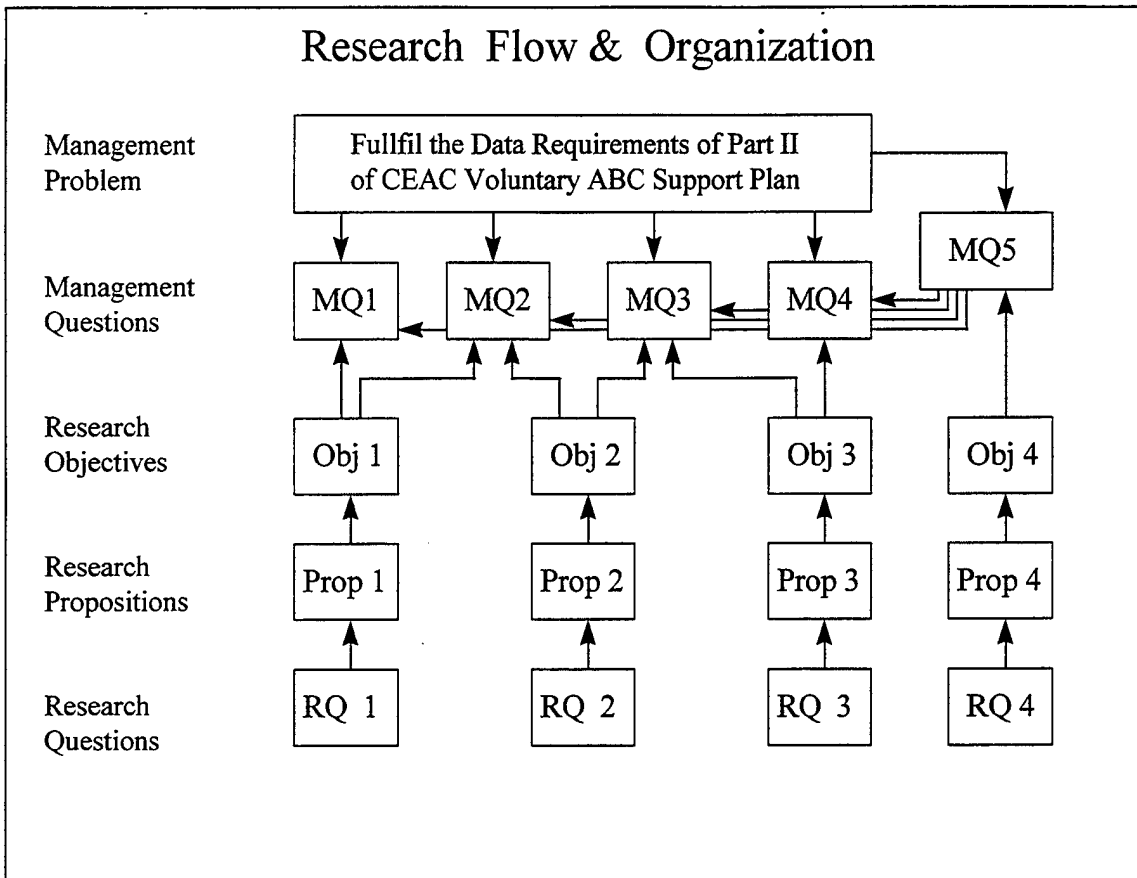


Figure 7. Research Flow and Organization

From each of the research questions, RQ1 through RQ4, investigative questions are formed from key phrases. From each of the investigative questions, variables are identified that when defined would answer the investigative question. The measurement questions, those which appear on the surveys, are designed to tease out the variable values.

**Management Questions.** The Management Questions (MQs) are those questions which directly answer the information needs presented by our sponsors. Even though MQ5 is not directly requested by our sponsor, it is a requested knowledge item in the VSP and an essential enabling question for MQ1 through MQ2. Without knowledge of the “who,” it is



impossible to determine the “what.” The answers to these questions are the subject of Chapter V.

Table 2. Management Questions

MQ1: What are the developing ABC issues within the US Army ?
MQ2: What are the existing methodologies used in the field ?
MQ3: What software is currently in use or planned to implement ABC ?
MQ4: What are the US Army’s ABC training needs ?
MQ5: Who is using ABC and how do we communicate with them ?

**Research Objectives.** Although this research effort cannot address all the data requirements, four research objectives have been established to respond directly to the management questions. The first three are designed to answer the primary management questions, while the fourth Research Objective is designed to satisfy the secondary “who” requirement. The relationship of management questions to research objectives is not direct. Objective 1 supports MQ1 and MQ2. Objective Two supports MQ2 and MQ3. Objective Three supports MQ3 and MQ4, while Objective Four only supports MQ5. These relationships are graphically portrayed in Figure 7. Table 3, on the next page, lists the research objectives.

Table 3. Research Objectives

<b>Objective One:</b>	Discover the major policy issues happening or promoting the implementation of Activity-Based Costing within the US Army.
<b>Objective Two:</b>	Explore the purpose for which Activity-Based Costing is being implemented in the US Army, and how the information gained from Activity-Based Costing reporting is or will be used by management
<b>Objective Three:</b>	What is the general status of Activity-Based Costing knowledge in the US Army resource management environment, and discover the extent of training needs to economically promote Activity-Based Costing
<b>Objective Four</b>	Discover who is using Activity-Based Costing principles in their management of US Army resources. Provide to CEAC a mailing list of ABC practitioners, and establish a World Wide Web forum to promote Activity-Based Costing.

**Research Propositions.** From information gleaned from the literature review and electronic mail interest questions, a research proposition for each of the objectives was formulated. These propositions are similar to hypotheses used in other than exploratory research, and are presented as a benchmark position to gauge survey responses. This study is exploratory, and there is no way to predict the actual responses from ABC practitioners. The success or failure of this study is not hinged on field responses, nor is there is a desired outcome in a validity test of any propositions. In this research there is a direct relationship between the research objectives and the research proposition. Research Proposition One is associated with Research Objective One, and so forth for the other three.

Table 4. Research Propositions

**RESEARCH PROPOSITION 1:** Those implementing ABC principles would rather not receive guidance and assistance from Headquarters, Department of the Army.

**RESEARCH PROPOSITION 2:** Activity-Based Costing was implemented as a long term cost management response to declining budgets. Reporting information received from Activity-Based Cost Reports has helped management understand their business area better, but has not lead to internally generated budget reducing measures.

**RESEARCH PROPOSITION 3:** ABC practitioners would suggest that the best use of training dollars would be to send their commanders to an ABC overview course.

**RESEARCH PROPOSITION 4:** Activity-Based Costing principles are much more widespread than expected, with more than fifty grass roots efforts currently under implementation.

With the identification of the research propositions, the first block of the project planning is complete (Figure 4: Research Process). The next block in the research process is to identify specific research questions. Prior to proceeding to the next step, a feasibility study was accomplished to determine (1) the abundance of data, (2) an expected response rate from any surveys, (3) availability of published background materials, and (4) any interest and application in this research outside the sponsors requests. The goal of this exploratory step was to prove the viability of this project as an acceptable thesis topic.

**Exploration.** Exploration was approached from three directions. First, the traditional method of literature review provided ample background material to the mechanics and case histories of Activity-Based Costing. The second approach in exploration was to “surf” the

Internet to find Activity-Based Costing sites. The goal of these searches were to find annotated bibliographies, ABC guidelines from Defense Agencies, prior surveys from which to borrow from, and finding contractors selling ABC services to the public and Department of Defense customers. Of specific interest were to search for databases from which points of contacts could be established. Last, CEAC had expressed a desired to construct its own ABC home page, and the exploratory search was conducted with the intent of finding many good formats that could be incorporated into that effort.

The last approach used in the exploratory effort was to contact known POCs to get their perceptions and experiences concerning ABC. The goal of this effort, about thirty e-mails sent between August and November 1995, was to help scope the size of this research effort, get an initial impression of excitement for ABC, announce this research project, and to get feedback on trial questions that may be asked in surveys. Later in December 1995 and January 1996, this same e-mail was used to test the interest beyond those known to be interested in ABC. The text of these canvassing questions is found in Appendix C.

**Research Questions.** Research questions are the next link between the management problem and the set of investigative questions. In this study, four research questions have been developed to answer the four research objectives. The secondary purpose of each research question is to directly provide justification for or evidence against accepting the validity of the research propositions. The following table lists the four research questions that correspond to the research propositions.

Table 5. Research Questions

Research Question One:	<i>What kind of policy guidance is needed to provide a fertile environment for Activity-Based Costing to be effective, efficient, and flourish?</i>
Research Question Two:	<i>For what purpose has Activity-Based Costing principles been implemented in the US Army, and how successful has management been in using the reported data?</i>
Research Question Three:	<i>What is the current US Army training status of ABC principles, how has ABC Training been accomplished, and what future training is still needed..</i>
Research Question Four:	<i>What is the depth and breadth of Activity-Based Costing practices within the US Army?</i>

These research questions are a pivotal step in the overall organization of the research. Hence, research questions make up their own block in the project planning section of the research process. With the approval of these questions, exploratory efforts could begin as well as shaping of the investigative questions.

**Investigative Questions.** Supporting research questions are investigative questions. The following four pages describe each research question and their corresponding components. Key phrases in the research questions are underlined and have associated investigative questions. Investigative questions which have a “\*” are those with an associated measurement question in the first survey. Those without the “\*” have measurement questions only in the final survey. The measurement (survey) questions are included in Appendix C.

The following four pages present the research questions, define the pertinent clauses, and lists the qualitative supporting aspects of the questions. For each pertinent clause, a set of investigative questions are listed. These investigate questions, when answered, will be used to define the clause, which in turn will answer the research question. A listing of all the research questions are displayed in Table 5.

## Research Question One:

*What kind of policy guidance is needed to provide a fertile environment for Activity-Based Costing to be effective, efficient, and flourish in the US Army?*

**Supports:** Research Proposition One, Research Objective One, Management Questions One (Issues) and Two (Methodologies).

### Investigative Questions: (\* = Initial Survey Questions)

#### Policy Guidance

- 1-1. \* Where has ABC policy guidance been helpful?
- 1-2. Where, if any, is additional guidance and direction needed. Where not?

#### Fertile Environment

- 1-3. \* What has been the affect of management or leadership involvement?
- 1-4. \* What actions facilitated acceptance of ABC and its implementation?

#### Effective and Efficient

- 1-5. What performance measures are used in measuring effectiveness & efficiency?

#### Flourish

- 1-6. \* Given time and resources, where would next apply ABC principles?
- 1-7. \* Why did an organization elect not implement ABC?
- 1-8. What are they using instead?
- 1-9. What related problems will they continue to face?

## Research Question Two:

*For what purpose has Activity-Based Costing principles been implemented in the US Army, and how successful has management been in using the reported data?*

**Supports:** Research Proposition Two, Research Objective Two, Management Questions Two (Methodologies) and Three (Software).

**Investigative Questions:** (\* = Initial Survey Questions)

### Purpose

2-1. \* What was the motivations behind implementing ABC ?

### Principles

2-2. What types of data are being captured?

2-3. What costs are excluded from your ABC models?

2-4. How were fixed and sunk costs allocated in their models?

### Implementation

2-5. \* What tools were most beneficial in developing ABC ?

### How Successful

2-6. What are the most important and useful features in their models ?

2-7. What are the least useful features in their model ?

2-8. \* What benefits have been realized from ABC implementation ?

2-9. \* Which costs were the most difficult to track ?

### Reported Data

2-10. \* What types of reports has management used?

2-11. Who is using the report data, and for what purpose?



### Research Question Three:

*What is the current US Army training status of ABC principles, how has ABC training been accomplished, and what future training is still needed?*

**Supports:** Research Proposition Three, Research Objective Three, Management Questions Three (Software) and Four (Training).

**Investigative Questions:** (\* = Initial Survey Questions)

#### Training Status

- 3-1 What formal or informal ABC instruction has been attended by users ?
- 3-2. \* How comfortable are managers with the current level of ABC training within their organization?

#### ABC Training

- 3-3 How have users been trained? On-the-job, formal instruction, professional development, seminars, other means?
- 3-4. Who provided training?
- 3-5. Was a consultant used, if so in what role?

#### Future Training

- 3-6. \* How much ABC training is needed?
- 3-7. \* What course work aimed at what level given to what audience would best serve the US Army in promoting successful implementation of Activity-Based Costing

#### Research Question Four:

*What is the depth, breadth, and the current US Army investment in Activity-Based Costing practices?*

**Supports:** Research Proposition Four, Research Objective Four, Management Question Number Five (Who).

#### **Investigative Questions: (\* = Initial Survey Questions)**

##### Depth

- 4-1. \* What kind of units have been involved with ABC?
- 4-2. Generally, who are and who are not the ABC practitioners?

##### Breadth

- 4-3. \* What was the scope of their ABC effort?

##### Investment

- 4-4. How much is it costing the organization to implement ABC?
- 4-5. Is the organization using contractor support, if so, how involved is the contractor?
- 4-6. What within the government resources are committed to Activity-Based Costing?

**Sampling Plan.** A six step sampling plan was drawn as the road map for acquiring data from survey respondents. To avoid duplication, this plan is detailed following under the title of “Implementation of Research Design.”

**Economic Analysis.** A quick estimate of costs and benefits of this research was conducted to determine if this research was cost effective. The expected value of the expected information far exceeded the cost to complete the research. The approval to proceed was gained from CEAC, the sponsoring agency on 22 November 1995.

**Design, Research Variables, and Measurement Questions.** The next step of the Research Process was to dissect the investigative questions to find research variables which describe the essence of the investigative intent. The following four pages define the qualitative variables decided upon and illustrate their relationship between the investigative questions and the measurement questions. Measurement questions are those questions found on the surveys used as the means to discover the respondents variable value. The introductory canvas question, initial survey, and final survey are in Appendix C.

Additional variables were added later to help provide internal communication between the authors, but have little relevance to the findings and conclusions. These variables, 45 through 48 were for internal use, and not included in Appendices D and E.

*Variable Descriptions, Research Questions 1 - 4*

Table 6. Research Question #1 Variables

**Variable Descriptions, Research Question One**

Variable Number	Investigative Question	Measurement Question 1 Survey 2		Variable Name	Description
1	1-1.	16		POLICY SUCCESSES	Specific applied policies which have helped solve ABC implementation problems.
2	1-2.	16	6	POLICY FAILURES	Specific policies which have unduly burdened ABC implementation efforts.
3	1-2.	16	6	POLICY VOIDS	Those policy areas where guidance was needed but not provided.
4	1-3.	17 & 18		MANAGEMENT OR LEADERSHIP INVOLVEMENT	Level of involvement and support given by management to implement ABC, answered in terms of policy, resources, and enthusiasm.
5	1-4.	17 & 18		ACTIONS PROMOTING ABC	Those decisions made which promoted the use of ABC
6	1-5.		6	PERFORMANCE MEASURES	Measurable evidences of ABC success.
7	1-5.		7	EFFECTIVENESS / EFFICIENCY	Effectiveness is the ability of the ABC system to answer management's questions. Efficiency is the perceived ratio of benefits to cost of the process.
8	1-6.	10 & 3,4		FERTILE GROUND	Those organizational activities which are ripe for ABC implementation.
9	1-6. 1-4.	11 & 9,17,18		CATALYSTS FOR ABC GROWTH AND USE.	Those environmental and leadership factors which, when present, promote the implementation of ABC.
10	1-7.	10 & 5,6		REASONS NOT TO IMPLEMENT ABC.	The specific reasons ABC was not considered, considered inadequate, or thought to be unworthy of resources.
11	1-8.		5	SUBSTITUTE METHODOLOGY	Other models or procedures used to provide detailed costing information.
12	1-9.	11	5	PROBLEMS WHICH ABC DID NOT CURE.	Identified inadequacies of an ABC solution.

Table 7. Research Question #2 Variables

### Variable Descriptions, Research Question Two

Variable Number	Investigative Question	Measurement Question 1 Survey 2		Variable Name	Description
13	2-1.	12 & 14		MOTIVATION	Specific (+) reasons why ABC was implemented, and (-) problems solved.
14	2-2.		10	CAPTURED DATA	Specific metrics which their ABC model considers relevant, hopefully with some insight to manual or automated capturing methods.
15	2-3.		11	EXCLUDED COSTS	Those metrics which were considered too hard to capture, irrelevant, or which a proxy variable could be used.
16	2-4.		12	ALLOCATED COSTS	Those costs (sunk, fixed, direct, etc.) that were used in ABC calculations.
17	2-5.	13	7	SOFTWARE	Any Commercial Off-the-Shelf (COTS) or developed programs used to implement ABC models.
18	2-5.	13		DEVELOPMENT TOOLS	Any tools used to develop the ABC model, to include software, books, or methodologies provided by consultants.
19	2-6.		7	USEFUL FEATURES	Those things which their ABC model does well and is used by managers.
20	2-7.		7,8	LESS USEFUL FEATURES	Those things which their ABC model does but provides little value added.
21	2-8.	14	7,8	BENEFITS	Tangible and intangible benefits which have come from ABC being implemented within the organization.
22	2-9.	15		DIFFICULT COSTS	Those relevant metrics which are difficult to track, and may have required proxies, or completely left of the model.
23	2-10.	14	9	TYPES OF REPORTS	The outputs from the ABC system that are of use to the command.
24	2-11.		9	REPORT USERS	Consumers of the ABC system.

Table 8. Research Question #3 Variables

### Variable Descriptions, Research Question Three

Variable Number	Investigative Question	Measurement Question 1 Survey 2		Variable Name	Description
25	3-1.	7,8,9	13	COURSE WORK	Formal ABC relevant course work relevant to users or management.
26	3-2.	7,8	14	TRAINING STATUS	The current state of saturation of ABC related coursework in the organization.
27	3-3.		14	TRAINING METHODOLOGIES	The approach used by organizations to train their staff and management.
28	3-4.		15	TRAINERS	ABC Education providers.
29	3-5.		16	CONSULTANTS	Experts used in the planning and implementation of ABC.
30	3-6.	8,9		TRAINING MATERIAL REQUESTED	The areas which respondents feel training would be useful, in terms of course name and content.
31	3-7.	9 & 2		TARGET AUDIENCE (USER / MANAGEMENT LEVEL)	The job title / management level of the attendee which the respondent feels a need exists.
32	3-7.	9 & 2		BEST USE OF TRAINING DOLLARS	The training of a specific audience that would be most beneficial for ABC promotion within the organization.

Table 9. Research Question #4 Variables

**Variable Descriptions, Research Question Four**

Variable Number	Investigative Question	Measurement Question 1 Survey 2		Variable Name	Description
33	4-1.	3 & 2,4	2	UNIT CATEGORY	Description of type of organizations using ABC.
34	4-1.	3 & 4,5,6	3	APPLICATION CATEGORIES	The general services area and specific applications which ABC models or principles are being used or planned.
35	4-2.	5,6 & 3,4,10 11		GOOD CATEGORIES	The general services area or specific applications where ABC models thrive and are being used effectively.
36	4-2.	5,6 & 3,4,10, 11		POOR CATEGORIES	The general services area or specific applications where ABC founders and models are not being used effectively.
37	4-2.	5,6 & 3,4,10, 11		OVERALL ARMY WIDE ABC USE	Generally, the types of organizations and applications which ABC principles are being adapted.
38	4-3.	19,20 & 1	3	LEVEL OF ABC INVOLVEMENT	The extent of ABC involvement and enthusiasm of the respondent.
39	4-3.	5		PERCENT OF BUDGET IN ABC	The breadth of ABC involvement in terms of budget
40	4-3.	6		PERCENT OF COMMAND IN ABC	The breadth of ABC involvement in terms of command services
41	4-4.		17	ABC COST	In estimated dollars, the total of all expended and future ABC implementation costs for the organization of the respondent.
42	4-5.		16 & 17, 18	CONTRACT SUPPORT	Names of any support contractors or consultants involved with organization
43	4-5.		18 & 16	CONTRACTOR COMMITMENT	Resource commitment of contractor to the organization.
44	4-6.		17	GOVERNMENT RESOURCES	Government resources used in the implementation of ABC

### Implementation of Research Design

The four research objectives previously stated were accomplished by executing a six step implementation plan. Starting from the point of the proper scoping of the research and finalized research questions, the research was conducted in the following steps. The first step is the formulation of the survey instrument (step 1), followed by a pilot test to check survey performance (step 2). After appropriate adjustments to the survey (step 3) data collection commenced (step 4) followed by the data analysis (step 5) and reporting (step 6). This section details the first four steps and concludes with the analysis plan. Chapter IV of this thesis continues as the execution of the analysis plan, followed by Chapter V as the report of the analysis.

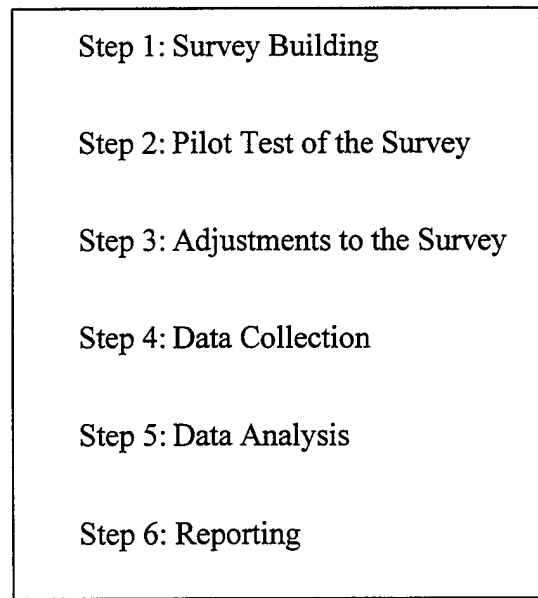


Figure 8. Six Step Implementation Process



**Step 1: Survey Building.** The research design of this exploratory thesis called for the use of a survey to glean information from multiple points of contact. The survey itself was constructed in three steps, building, piloting, and adjusting. Building the survey (step 1) was the process of taking each of variables from the investigative questions and to create appropriate measurement questions.

Originally twenty-two variables were identified as the minimum to accomplish the data discovery. Measurement questions were drafted and sent to the sponsor for comment. The result of this was that the sponsor was convinced that no less than forty variables were needed. As measurement questions were being formed, this number proved too many for a single survey instrument. At this point the decision was made to go with two surveys. The first survey primarily measured “who, what, and where” variables, where the second focused on “how and how well.” The second survey was designed as to only go to those who were very active with ABC, a number yet to be determined at that point. “Active” was defined as enthusiastic, knowledgeable, having the authority to answer, and having the time required to give quality answers. When the sponsorship final review was submitted, a new “hot issue” had arisen, and that was “how much is ABC costing” questions. Four more variables were added, bringing the number to forty-four.

This new set of variables caused yet another problem when being translated into measurement questions. At this point, there were twenty questions in the first survey and nineteen in the second. In review of the surveys, it was determined that the information requested in the second survey was asking too much of the respondents. This data requirement seemed too burdensome and we felt that a second survey would probably

experience a very low response rate. At this point, the approach for gathering the second electronic mail survey was turned into a structured interview protocol. There were a number of justifications for this. First, while conducting the interview when it became apparent that certain issues did not apply to the respondent, that section was be skipped. Second, respondents were found to tolerate a friendly phone call better than an "essay exam." Third, the research sought to avoid tangential answers.

Concerned about the trend of adding more variables every time approval was sought, the research moved directly to pilot testing. Sponsor approval was assumed if the changes in the pilot test questionnaire sent to them were incorporated into the final survey instruments.

**Step 2: Pilot Testing.** The pilot test was conducted to determine the reliability of the survey to provide data to support the analysis of all the variables. The pilot testing was conducted over a two week period, with a total of seven surveys were sent out. As a pretest, two pilots were sent to our thesis faculty advisory team, one to our sponsor, one to a DoD representative, and one to an ABC contractor working with the Army. Included in our pilot testing was a "real time" testing approach with the intent of getting actual answers and response questions concerning what were really asking. Two "real time" surveys were sent, one to a known ABC user and finally one to a known non-user, but a person who had demonstrated a mastery of the subject in a response during the POC discovery phase.

**Step 3: Adjustments to the Survey Instrument.** Based on inputs from the thesis advisory team and the field experts, changes were made to the survey. These changes were

based on both cosmetic and substantive suggestions. Substantive changes included the correction of omissions and changes made to allow for better analysis and reliability of the information sought to answer the research questions.

Of the pilot tests, the input from the “real time” participants were the most valuable. The actual time to take the survey had been seriously underestimated. This caused real concern for us, and we took the advise of the non-ABC user to break the initial survey into a pre-survey with a main survey attachment. This change would allow us to quickly identify those who do not use ABC, but still may have an opinion, and secondly get quick opinions from those who do not have time to fill out a whole survey.

One stumbling block found in the pilot survey was the approval process to authorize a survey instrument at the Air Force Institute of Technology (AFIT). Fortunately, a AFIT survey number was not required because no Air Force personnel would be surveyed. Yet AFIT did require a considerable disclaimer to be placed at the beginning of the survey. Since there was no official requirement to respond to the survey, coupled with a the preamble stating this was a personal research project, CEAC agreed to sponsor the voluntary research survey of Army reporting units.

The final task in this step was to get survey instrument approval from the advisory team and the sponsor. The approved surveys are included in Appendix C.

**Step 4: Data Collection.** Data collection is the art of getting right people to answer the right questions. Asking the right question had already been addressed in steps one, two, and three. Step four consisted of the following tasks: securing points of contacts, requesting and

obtaining time commitments of those willing to participate, issuing the survey, and collecting the surveys. Step four was not complete without the review of responses for obvious misunderstanding of the questions, and telephone follow up of delinquent, incomplete, or erroneous survey responses.

The search for POCs followed two approaches. The first method was a "top down" approach using the command structure as a path to find ABC initiatives. The second method employed a "bottom up" approach, using the Assistant Secretary of the Army (Financial Management and Comptroller) data base of resource managers. This list produced action officer and mid-management level POCs. Results of this POC search were logged into the POC database created for the specific purpose of keeping track of respondents and non-respondents.

To augment these two methods, two additional lists will be explored. The first small but rich list is the existing "ABC Mailing list" maintained by CEAC. The second search augmentation list is the attendance list from the Department of Defense Cost Analysis Symposium. These combined list produced almost 1000 potential points of contacts for ABC activity.

After names were secured, the process of finding those willing to commit to answering surveys commenced. The first step was the sorting and selecting of names from the lists obtained from the four sources. The attempt was made to get one electronic letter inquiry to each MACOM resource manager at each Army camp, post, or station. After this sorting and selecting, the process continued with a mass mailing of a standard canvassing inquiry letter, personalized responses to those who replied, and follow up letters to suggested

POCs. Finally, for those POCs which looked promising, a personalized request to participate in the research was sent. The following flow chart (Figure 9) details the actions taken used to secure participates.

The fifth management question of this research was to find ABC users and establish ways to communicate with them. This requirement also implied to find who was not using ABC, who was not responding, and to what extent are respondents willing to participated in research. To answer this, all of the electronic traffic was logged and stored in the POC database. The substantive contents of the database were detailed in Appendix E of this document. The following is the adopted methodology for keeping track of respondents.

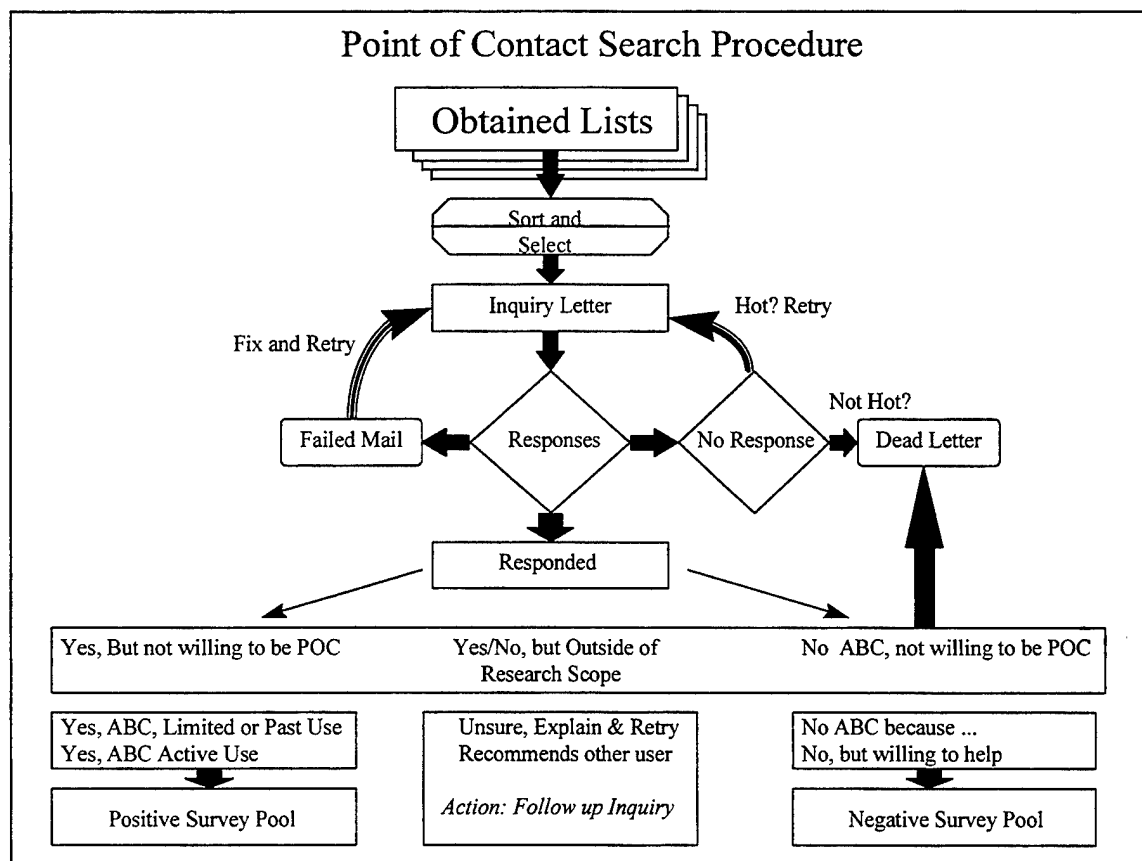


Figure 9. Point of Contact Search Methodology

A listing of the exhaustive list of posts and MACOM activity is provided in Appendix F. Appendix G is the final contact listing, the ASA(FM&C) POC database, the CEAC ABC user mailing list, DODCAS mailing list, and the list of successful "top down" POC list from the Internet.

While the database was the primary source for this secondary "who" management objective, other approaches were also explored. One attempt was the Activity-Based Costing Internet Home Page was created to produce a list of interested individuals. A copy of this Home Page is included in Appendix G.

**Step 5: Data Analysis.** The purpose of the data analysis was to determine the validity, partial validity, or level of incorrectness of the four research propositions. Data analysis was accomplished in three steps, the tracking of the surveys, the coding of the responses, and the evaluation of the propositions in light of the responses. Of the three steps, only the evaluation step had to wait until all the responses have been returned or the cut-off date had been reached.

Data analysis technically began with step three, the adjustments to the survey. The fifth survey, which went to an actual Army ABC practitioner, was used to test this data analysis plan. Since it was thought that information about enthusiasm in the field for Activity-Based Costing could be gleaned from time stamping survey issuing and return, all surveys were logged in the results database concerning departure, receipt, and return.

Survey coding is the action of taking the responses on the surveys and allocating the responses to the variables being described. Coding was accomplished in batches of five as

surveys arrived and was accomplished by only one analyst to insure consistency. Once the cut off date had arrived, a 100% validation of coding was done to insure there had been no inconsistencies due to the time span. One critical part of the coding process was the evaluation of free form answers that may shed light on variables other than the designed purpose of the specific measurement questions. When in doubt, the coding placed these out-of-design responses into other appropriate variable description file folders. The pertinence of the out-of-design responses was left to the judgment of the evaluator in the next step of the analysis. A copy of the survey coding sheets is included in Appendix D.

The evaluation step was accomplished as a roll-up procedure. Each measurement question was designed to describe attributes of one or more of the forty-four defined Research variables. Based on the supporting relationships, variable “electronic file folder” sets were assembled for each research proposition. For example, in the case of Research Proposition Three, Variables 25 through 32 were assembled. Using these variables, each corresponding Investigative Question (3-1 through 3-7) was answered individually based on responses given in the surveys of the corresponding variables. These investigative questions collectively answered the general research question number three, and further lead to the decision concerning the validity of the Research Proposition Three. This procedure was the same for each of the research propositions.

**Step 6: Reporting.** Steps one through four describe the plan used to execute the research design. The actual execution of these plans is accomplished over time and then documented in step six. The conduct of the analysis, as described in step five, is reported in Chapter IV.

The conclusions drawn from the analysis of Chapter IV, in the form of answers to the management questions, follow in Chapter V.

### Summary

Chapter III outlines the research methodology used to conduct the research. In summary, the methodology took the Management Information Priorities (Table 1) provided by our sponsor and broke them into management questions, research objectives, research propositions, and research questions. The research questions were further broken down into research variables, investigative questions, and measurement questions. From this research design, an implementation plan was designed to accomplish the data collection and analysis. The following chapters describe the fruits from the execution of this methodology.



## IV. Findings and Analysis

### Overview

This chapter is the analysis of the data with the end of deciding the validity of each of the research propositions. The organization of this chapter is to first state the proposition, present the result of the analysis, and then explain the analysis. This chapter ends with a synopsis of the analyses.

### Analysis Design

**Organization.** For each of the research objectives, a research proposition was formed. These propositions are similar to hypotheses used in quantitative research and are presented as a benchmark position to gauge survey responses. In turn, research questions were constructed to determine the validity of the proposition. In this research a direct relationship was found between the research objectives and the research propositions. Research Proposition One is associated with Research Objective One, and so forth for the other three.

The explanation portion, which follows the statement of the proposition and the result is composed of the analysis of the research questions. Each research question is decomposed into investigative questions. Answers to the investigative questions are based on the data associated with each of the assigned variables. These sub-sections of the analysis are organized by research question statement and answer, the investigative question statement and answer, and finally the supporting variable analysis.

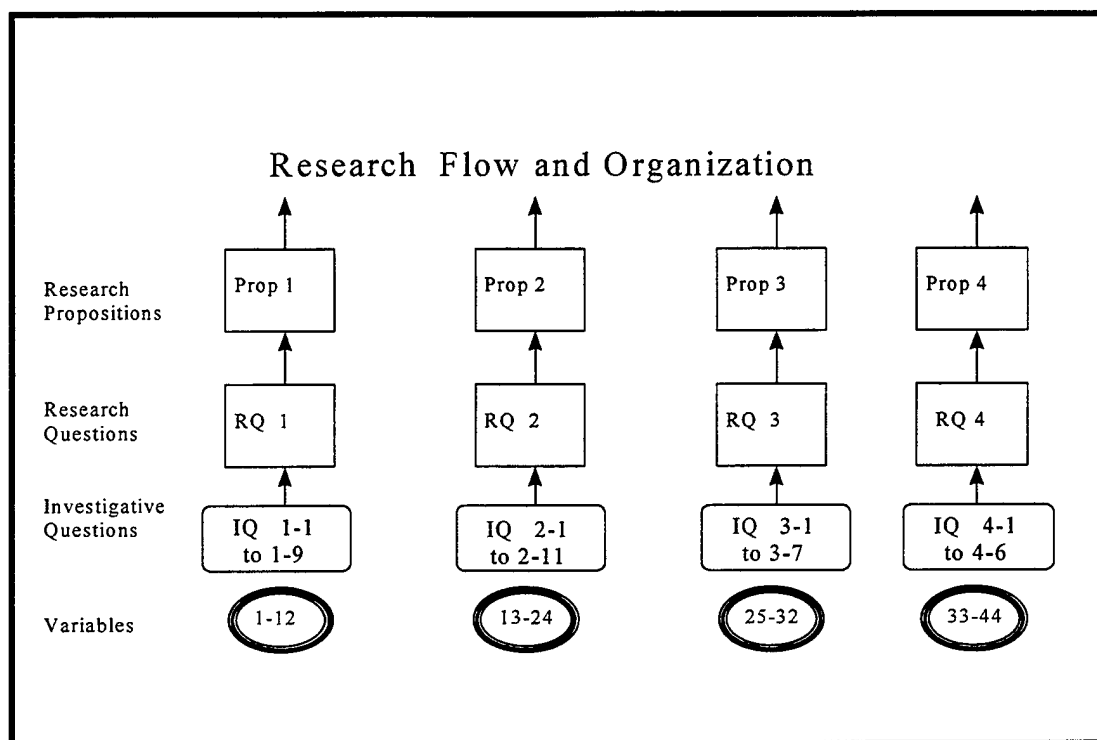


Figure 10. Research Flow and Organization

**Design Failures.** One significant failure in the research design for data collection was the hope of retrieving information from a World Wide Web Home Page. The Home Page was to be installed as an element of the ASA(FM&C) Home Page, and was to be monitored for inquiry and possible answers to Measurement Questions. This approach failed. Although the Home Page was constructed and prepared for installation, there were problems with the host. ASA(FM&C) had agreed to host the ABC Home Page as part of their pages, they later determined that ABC was a CEAC mission and would be better supported residing on a CEAC server. CEAC was scheduled to install a server in May 1996, but problems delayed this a number of months, forcing research efforts outside the discovery phase of this thesis. The Home Page (Appendix G) is scheduled for installation in October 1996.

**Design Successes.** The greatest success in the research design was the response rate received from the field. Overwhelmed by the volume of e-mail, the problem soon became unmanageable by simple tabulation, and a formal system had to be developed to handle the electronic mail responses. The response rate prompted efforts to increase follow up efforts to achieve an exhaustive survey response, not only for each post, but from each MACOM activity on each post.

In retrospect, the success in survey response can be attributed to the following approaches. First, there were immediate and future benefits for the respondents. Two such benefits was input into helping form ABC policy and also to receive feedback from the research. Second, the ease of responding immediately (or later) was enhanced by the use of standard functions within e-mail systems. Third, the ability for those to forward and to get quick approval from their managers, and then return them for processing. Fourth, the survey was non threatening, and had the option for the user to keep their replies unpublished. Fifth, the average grade of respondents was GS-13 (civilian) and Major (military), which translated into prompt and professional responses. Sixth, each initial and follow-up e-mail was personalized with all replies greeted within 24 hours with a thank you letter. Last, and most important, there was already present great interest in ABC in the resource management community, with this topic already an action item on many of their commander's agendas. Overall, as detailed in Appendix F, there was an overall response rate of 66% consisting almost evenly between actual surveys and opinionated e-mail responses.

### Research Proposition Analysis

The research propositions were designed to meet the research objectives. Even with the best research effort, no judgments would be credible without sufficient data to support the analysis. The first judgment of this research was to determine if the quality and quantity of responses warrant entry into the data analysis phase. As detailed in Appendix F, the response rate from the request for opinion was over 65%. The quality of the responses was quite good, with none of the responses being of an unprofessional nature. Based on those two items, it is the researcher's judgment that the analysis cannot be discounted on the basis of insufficient data.

The following table restates the research propositions. Following the propositions is the data analysis. The structure is top-down with data, and return with evaluation.

Table 10. Research Proposition Judgments

<b>RESEARCH PROPOSITION 1:</b> Those implementing ABC principles would rather not receive guidance and assistance from Headquarters, Department of the Army. <b>Evaluation: REJECTED</b>
<b>RESEARCH PROPOSITION 2:</b> Activity-Based Costing was implemented as a long term cost management response to declining budgets. Reporting information received from Activity-Based Cost reports has helped management understand their business area better, but has not lead to internally generated budget reducing measures. <b>Evaluation: FAILED TO REJECTED WITH QUALIFICATION</b>
<b>RESEARCH PROPOSITION 3:</b> ABC practitioners would suggest that the best use of training dollars would be to send their commanders to an ABC overview course. <b>Evaluation: REJECTED</b>
<b>RESEARCH PROPOSITION 4:</b> Activity-Based Costing principles are much more widespread than expected, with more than fifty grass roots efforts currently under implementation. <b>Evaluation: REJECTED</b>

## Research Variable Analysis

The research variables are the foundation for each of the investigative questions, therefore they are also foundational for the remaining questions. The approach used to conduct the analysis of the variables is ethnographic, or based on the logical breakout of themes within the responses for each variable. The following figure gives the top levels of the analysis tree common to each of the variable analysis. Within the individual variable analyses, the pertinent sub-trees are constructed.

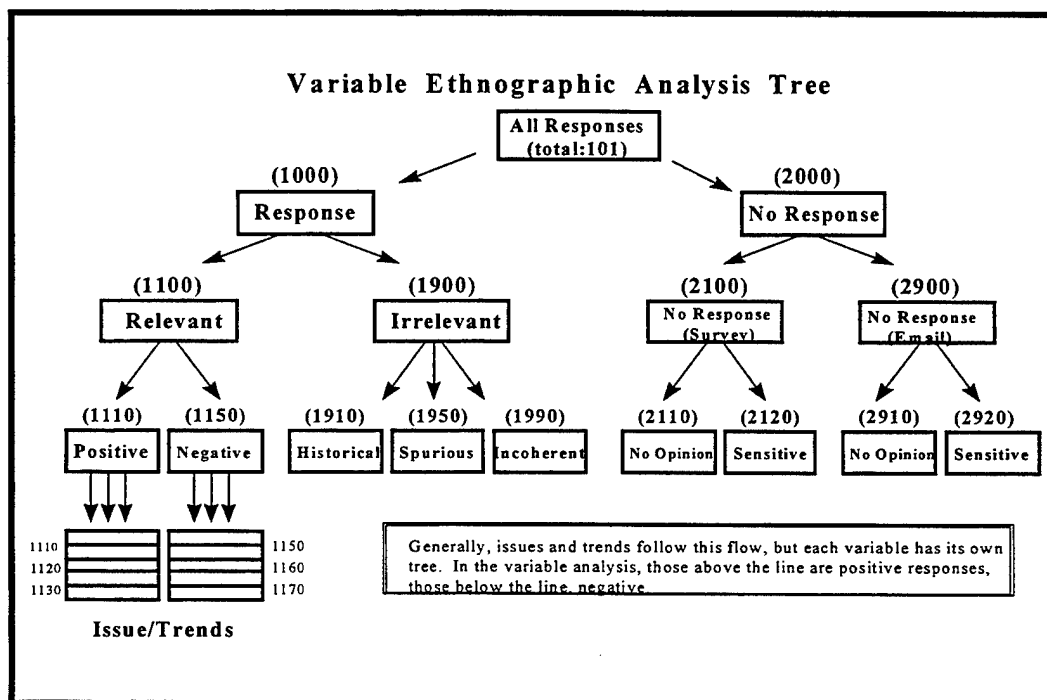


Figure 11. Variable Ethnographic Analysis Tree

The coding of the responses by variable is accomplished by assigning branch numbers to each of the 101 responses given for each variable. As per the analysis tree, the lower the number, the more important it is to the determination of the variable value. Appendix E contains the determined value (by our analysis) and displays them in numeric order. Responses with code numbers of greater than 2000 are truncated from the

lists. Within this chapter, the variable analysis is performed based on the associated page in the cited appendix. Some simple statistics are provided in each variable analysis; they are used for insight and not for quantitative analysis.

Each of the next four sections, one for each research question, takes raw data from the surveys, puts them in order, and conducts an analysis in order to eventually make a judgment on the research propositions. An example of taking the data from the surveys and ordering is given in Appendix D. Also in Appendix D is an example of how one or more survey responses are combined to produce a variable input. These variable inputs are then stored in the variable data base. Once all survey data have been ordered, variable inputs determined, and put in the variable data base, all variable responses are coded with ethnographic structures dependent on responses unique to each variable. The coded results are sorted by number and then alphabetically. The substantive results, one per variable, are presented in Appendix E. Those responses that did not contain substantive comments are coded with values greater than 2000. For the sake of limiting volume, these responses are not included in the appendix.

Two important caveats need to be interjected at this point. First, even though many line units were surveyed, their answers were almost unanimous in not having knowledge of ABC. This lack of response brings a resource management perspective bias into the analysis. Second, it was found out after the surveys were returned that FORSCOM was acquiring ABC consultant services. For many of their responses, a "gag order" due to acquisition sensitivity was in place. This limited responses to some of the more sensitive questions.

### Research Proposition One

**Background.** Research Proposition One was based on the below Research Objective. This objective dealt exclusively with policy and which items were critical to respondents.

Table 11. Objective One

<b>Objective One:</b>	Discover the major policy issues happening or promoting the implementation of Activity-Based Costing within the US Army.
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The corresponding Research Proposition supports the intent of the objective, though not comprehensively. Nevertheless, Research Proposition is the appropriate measuring device to determine the ABC policy landscape. The analysis of this proposition gives ample insights to reaching the Research Objective. The statement of the proposition is as follows:

**RESEARCH PROPOSITION ONE.** Those implementing ABC principles would rather not receive guidance and assistance from Headquarters, Department of the Army.

Figure 12. Research Proposition One

**Evaluation.** Proposition One is rejected based on the available evidence. The conclusion was drawn from the analysis of the research variables, investigative questions, and research questions supporting this proposition. The following sections detail the data, data analysis, and findings concerning this evaluation.

*What kind of policy guidance is needed to provide a fertile environment for Activity-Based Costing to be effective, efficient, and flourish in the US Army?*

Figure 13. Research Question One

Research Question One supports Research Proposition One, Research Objective One, Management Questions One (Issues) and Two (Methodologies). The answer to this Research Question has four parts, One for each underlined clause.

#### *Policy Guidance*

Investigative Questions 1-1 and 1-2 are associated with the “policy guidance” clause. Below are listed these Investigative Questions with supporting variables.

Table 12. Investigative Question 1-1 and Research Variable 1

IQ: 1-1.	<i>Where has ABC policy guidance been helpful?</i>	
Variable 1	POLICY SUCCESSES	Specific applied policies which have helped solve ABC implementation problems.

**Variable Analysis.** The data used to determine this variable were found in Measurement Question 16 of survey #1. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 13. Research Variable 1 Ethnographic Analysis



Branch	Description	Rate	Count
1000	Response	25%	
1100	Relevant Findings	20%	
1110-49	Positive Response	14%	14
1150-99	Negative Response	6%	6
1900	Irrelevant Findings	5%	
1910	Historical	4%	4
1950	Spurious	1%	1
1990	Incoherent	0%	0
2000	Non-Response	75%	
2100	Blank on Survey	29%	29
2200	From Opinion Email	47%	47

The ethnographic analysis tree shows the following response rates. Overall, the responses indicated a positive attitude towards Activity-Based Costing. Positive responses had sub-branches of

1110	National Scope:	3 responses
1120	DA/MACOM	4 responses
1130	Local Responses	5 responses
1140	General Comments	2 responses.

On the national scope level, three opinions were given. Policy needs were stated in terms of continued vigilance in accounting disciplines, the marriage of other initiatives like the National Performance Review and Best Business Practices. The next level of comments (DA and MACOM) described general guidance received, endorsing activities like Internal Review offices. Local responses described local successes, like using Army management structure codes (AMSCODES) in conjunction with ABC. Last, two mode statements were made that the policies in place were easy to comply with and generally sufficient.

There were six negative comments about policy success, some bordering on being spurious remarks. Half of the comments indicated a lack of knowledge of any policies coming from DA or MACOM headquarters.

**Investigative Question 1-1 Analysis:** Based on the supporting variables for this investigative question, “*Where has ABC policy guidance been helpful?*”, the following has been determined.

Clearly from the responses, guidance has been most helpful when it has been known. There seems to be a general lack of awareness of current policies. Local policies all received great reviews which may have been biased by the opinion coming from policy authors. Policies which promote accounting disciplines were most requested. This correlates with policies coordinated with Internal Review offices being most praised.

Table 14. Investigative Question 1-2 and Research Variable 2

IQ: 1-2.	<i>Where, if any, is additional guidance and direction needed. Where not?</i>		
Variable 2	POLICY FAILURES	Specific policies which have unduly burdened ABC implementation efforts.	

**Variable Analysis.** The data used to determine this variable were found in Measurement Question 16 of survey #1 and question 6 of survey #2. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 15. Research Variable 2 Ethnographic Analysis

Branch	Description	Rate	Count	Negative responses had sub-branches of  1150 Paradigm Problems 5 responses 1160 Consultants 2 responses 1170 Barriers 7 responses 1180 Modeling 4 responses 1190 Expectation of Failure 7 responses.
1000	Response	27%		
1100	Relevant Findings	25%		
1110-49	Positive Response	0%	0	
1150-99	Negative Response	25%	25	
1900	Irrelevant Findings	2%		
1910	Historical	1%	1	
1950	Spurious	1%	1	
1990	Incoherent	0%	0	
2000	Non-Response	73%		
2100	Blank on Survey	28%	28	
2200	From Opinion Email	46%	46	

All the responses confirmed policy failure was a realistic expectation. None of the 101 respondents argued that policy was currently sufficient. The more serious answers came from concern with the rationale for cost accounting within the Army, with the implication that Activity-Based Costing was useless when applied in the military environment. Three respondents cited examples where ABC policies were in place, but had withered on the vine. Others lamented the woes of reporting “true costs” to Department of the Army, noting that non-value added reporting gets the attention of budget cutters and the Base-Realignment and Closure (BRAC) Commission. Four respondents noted local policy problems with the application of overhead and other problems with model building. From no advice, to excess advice, seven said that their higher headquarters brought on severe problems by restrictive policies and self-centered “HQ Logic.” The last category was where policies for ABC were still written from the traditional accounting mentality. Five respondents noted that paradigm shifts were still needed by policy and decision makers.

Table 16. Research Variable 3

Variable 3	POLICY VOIDS	Those policy areas where guidance was needed but not provided.
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**Variable Analysis.** The data used to determine this variable were found in Measurement Question 16 of survey #1 and question 6 of survey #2. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 17. Research Variable 3 Ethnographic Analysis

Branch	Description	Rate	Count	Positive responses had sub-branches of
1000	Response	16%		
1100	Relevant Findings	14%		
1110-49	Positive Response	14%	14	
1150-99	Negative Response	0%	0	
1900	Irrelevant Findings	2%		
1910	Historical	1%	1	
1950	Spurious	1%	1	
1990	Incoherent	0%	0	
2000	Non-Response	84%		
2100	Blank on Survey	27%	27	
2200	From Opinion Email	57%	58	
				1110 DoD & Higher Fault 2 responses
				1120 DA Level Fault 8 responses
				1130 MACOM Fault 2 responses
				1140 Local Fault 2 responses.

The lack of denial (0% negative responses) of the existence of policy voids indicated respondents concern that policy voids exist.. Over half of the respondents laid the blame for voids at the steps of DA level policy makers. An example was the concern over rework that may have to be accomplished if DA issues policy contrary to their efforts. The general void in guidance is why many proactive users are in “wait and see” mode, while others who were proactive made up policies as they went, thinking that if they were weak policies, they would be eventually corrected.

**Investigative Question 1-2 Analysis:** Based on the supporting variables for this investigative question “*Where, if any, is additional guidance and direction needed. Where not?*” the following has been determined.

The first impression from the supporting variables are that “where” and “what” is second in concern for “when.” The lack of guidance and policy voids received the more passionate responses especially focused at the DA level. As to were additional guidance is needed, it is clear the answer is at all levels, but mostly at DA. Specific areas of concern is

centered on points of conflicting policy, such as AR 5-9 (off post support) being in conflict with ABC initiatives. Another theme was a desire to know how best to accomplish ABC and a desire to avoid contractors. Overall, these comments were more extreme than other areas, indicating frustration and passion about this topic. The major concern was the desire to be in compliance with higher headquarters' guidance and to avoid having to re-accomplish any work if not in compliance.

The second part of the question was "where not?" The answer to this question would have been answered in the counter-current replies, but in the first supporting variable all answers were negative, and all positive for the last One. From this it can be assumed that "where not" is not a concern of the respondents.

**Clause Analysis: Policy Guidance.** From the Investigative Questions supporting this clause, the following has been determined.

"Policy Guidance" was defined in three ways, policy successes, policy failures, and policy voids. Both of the Investigative Questions were answered with the problem of lack of guidance as the big problem, followed by the removal of barriers and then specifics. Policy successes were clustered around local policies, where policy failures were based on paradigm problems at the next higher headquarters (and beyond). Policy voids were deemed to be mostly a DA level problem, with the notable exception of praise for the US Army Audit Agency and local Internal Review staffs. The US Army Cost and Economic Analysis Center (CEAC) received much of the criticism, but this could be accounted for based on whose name was listed as the survey sponsor. Respondents knowing that the

results were going to CEAC wanted to make sure their opinions were heard by mentioning that agency by name.

### *Fertile Environment*

Investigative Questions 1-3 and 1-4 are associated with the “fertile environment” clause. Below are listed these Investigative Questions with supporting variables.

Table 18. Investigative Question 1-3 and Research Variable 4

IQ: 1-3.	<i>What has been the effect of management or leadership involvement?</i>	
Variable 4	MANAGEMENT OR LEADERSHIP INVOLVEMENT	Level of involvement and support given by management to implement ABC, answered in terms of policy, resources, and enthusiasm.

**Variable Analysis.** The data used to determine this variable were found in Measurement Questions 17 and 18 of survey #1. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 19. Research Variable 4 Ethnographic Analysis

Branch	Description	Rate	Count	Responses had sub-branches of
1000	Response	61%		
1100	Relevant Findings	53%		
1110-49	Positive Response	20%	20	1110 Leadership Emphasizing 9
1150-99	Negative Response	34%	34	1130 Leadership Support & Resrc 6
1900	Irrelevant Findings	8%		1140 Leadership Desires ABC 5
1910	Historical	4%	4	1150 Lip Service 7
1950	Spurious	3%	3	1160 Leadership Tolerant of ABC 2
1990	Incoherent	1%	1	1170 ABC allowed to flounder 7
2000	Non-Response	39%		1180 Wait & See (Cautious) 4
2100	Blank on Survey	14%	14	1190 No Leadership Involvement 14.
2200	From Opinion Email	25%	25	

The sense from the field is that commanders receive three negative comments about their participation for every two good. The trend in the responses was that ABC is a “hot” issue for a while, receives attention, and then flounders. No leadership involvement responses came from both respondents who had wanted ABC and were waiting for a green light to proceed and from those who had started but leadership turned to other priorities. Though some of the responses were rather caustic, it is interesting that of the three respondents that wanted to keep their comments unpublished, none of them had anything to contribute about the leadership involvement in ABC at their sites.

From the analysis of the comments, it can be concluded that leadership is very important to the success of ABC within a command. Many responses to other questions indicated that leadership’s involvement was the difference between success and failure. Of those credited with success, general officer participation was the most cited.

**Investigative Question 1-3 Analysis:** Based on the supporting variables for this investigative question, *What has been the effect of management or leadership involvement?* the following has been determined.

Continued leadership involvement is the key to the success of Activity-Based Costing. The responses showing the most frustration came in three varieties. First were those who had ABC implemented and then have it flounder due to other priorities from management. Second were those whose leadership one or two levels above their organizational level were indecisive about ABC, turning their efforts on and off over time. The last were those who wanted ABC, but could not find a champion in management to

approve and resource their initiative. In summary, the key element to the success of ABC at a site is management involvement.

This variable received more substantial comments than any other variable. In global comparison with other variables within this survey, it can be deducted that leadership involvement is the most critical. The quantity and quality of the responses indicates that it would be safe to assume that any combination of training, resource application, consultants, data, and staff would not have as profound as a profound effect as an enthusiastic ABC champion in the senior leadership positions. Conversely, a non-supporter could kill any ABC initiatives regardless of prior momentum.

Table 20. Investigative Question 1-4 and Research Variable 5

IQ: 1-4.	<i>What actions facilitated acceptance of ABC and its implementation?</i>	
Variable 5	ACTIONS PROMOTING ABC	Those decisions made which promoted the use of ABC

**Variable Analysis.** The data used to determine this variable were found in Measurement Questions 17 and 18 of survey #1. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:



Table 21. Research Variable 5 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree
1000	Response	38%		1110 Actions of Higher HQ 5
1100	Relevant Findings	38%		1120 Accounting Need, RM need 7
1110-49	Positive Response	27%	27	1130 Leadership 10
1150-99	Negative Response	11%	11	1140 External Help (AAA / IR) 5
1900	Irrelevant Findings	0%		1150 Premature to Judge effect 3
1910	Historical	0%	0	1170 Negative: Consultants 1
1950	Spurious	0%	0	1180 Lack of Success Stories 2
1990	Incoherent	0%	0	1190 No outside influences 5.
2000	Non-Response	62%		
2100	Blank on Survey	19%	19	
2200	From Opinion Email	44%	44	

Of the positive comments, leadership and command action were the most prevalent factor in ABC being implemented. There was a strong showing from the Internal Review staffs and the US Army Audit Agency (AAA) for having an assisting role in ABC implementation. The only mention of a contractor or consultant was in a negative light, which could mean that marketing efforts by commercial vendors has hurt more than helped ABC efforts. Since that was only 1% of the response, the more correct analysis is that commercial marketing had very little effect either way on the decision whether or not to attempt Activity-Based Costing.

Table 22. Research Variable 9

Variable 9	CATALYSTS FOR ABC GROWTH AND USE.	Those environmental and leadership factors which, when present, promote the implementation of ABC.
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**Variable Analysis.** This variable was used in two Investigative Questions, 1-4 and 1-7. The data used to determine this variable were found primarily in Measurement Question 11, and secondarily in questions 9, 17, and 18 of survey #1. The responses were

recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 23. Research Variable 9 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree
1000	Response	31%		1110 An ABC Champion 7
1100	Relevant Findings	28%		1120 Com: Heard other successes 7
1110-49	Positive Response	22%	22	1130 Financial Mgmt System 5
1150-99	Negative Response	6%	6	1140 Training, Spt Agency Help 3
1900	Irrelevant Findings	3%		
1910	Historical	0%	0	
1950	Spurious	3%	3	1160 Cost, Declining Resources 2
1990	Incoherent	0%	0	1170 Leadership Failures 2
2000	Non-Response	69%		1180 Other solutions, too risky 2.
2100	Blank on Survey	13%	13	
2200	From Opinion Email	56%	57	

Of the positive comments, having an ABC champion and being encouraged by the success of others were the primary catalysts for ABC acceptance. These may be One in the same thing, because local champions would use success stories to justify their optimism. The Financial Management Systems, better yet the promise of an ABC friendly Foreign Military Sales (FMS), were also a catalyst for activity. Of the negative comments, the cost of implementation (data gathering, setting up models, training and consultants) was thought as too high for the expected benefits. This may be One in the same with leadership failure, since those wanting ABC could be stifled by management enforcing tight control over spending priorities, with ABC not resourced. It was noted by some that ABC was too economically risky. The costs of consultants, software, and staff commitment seemed by many as too high of a price tag to justify when similar but not as refined cost accounting information could be gleaned from other systems.

**Investigative Question 1-4 Analysis:** Based on the supporting variables for this investigative question, *What actions facilitated acceptance of ABC and its implementation?* the following has been determined.

Leadership and the presence of an ABC champion were the most common elements found in the responses which identified actions facilitating ABC. Second to that was a supporting environment containing two elements, the existence of success stories and the presence of support agencies to assist them. A common, but usually listed last of all reasons, was a promise of an ABC friendly financial accounting system.

**Clause Analysis: Fertile Environment.** From the investigative questions supporting this clause, the following has been determined.

Continuous support from leadership was the most prevalent characteristic of a fertile environment. Continuous leadership was defined as when a change in leadership occurs, the support for ABC does not wane. This also includes that the core of local champion(s) remaining stable and supported. The second element of a fertile environment is the existence of support agencies armed with successful track records in helping users to implement ABC. It is significant that these two elements of a fertile environment were independent of type of organization, such as Base Operations (BASOPS), logistics, services, or Table of Organization and Equipment (TO&E) line units.

### *Effective and Efficient*

Investigative Question 1-5 is associated with the “effective and efficient” clause.

Below are listed these Investigative Questions with supporting variables.

Table 24. Investigative Question 1-5 and Research Variable 6

IQ: 1-5.	<i>What performance measures are used in measuring effectiveness &amp; efficiency?</i>	
Variable 6	PERFORMANCE MEASURES	Measurable evidences of ABC success.

**Variable Analysis.** The data used to determine this variable were found in Measurement Question six of survey #2, and in the general responses from survey #1. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 25. Research Variable 6 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree	
1000	Response	26%			
1100	Relevant Findings	23%		1110 General Measures	3
1110-49	Positive Response	18%	18	1120 Specific Measures	3
1150-99	Negative Response	5%	5	1130 General Areas	7
1900	Irrelevant Findings	3%		1140 Leadership, Advice for	5
1910	Historical	0%	0		
1950	Spurious	2%	2	1150 General Negative Response	2
1990	Incoherent	1%	1	1160 None, with explanation	3.
2000	Non-Response	74%			
2100	Blank on Survey	25%	25		
2200	From Opinion Email	50%	50		

Of the responses, there were few that actually gave specifics. Recurring themes were those measures which contributed to “real costs” and “value added” or “non-value added” determinations. Other successes were in the categories of a service’s

“competitive rate” and customer-oriented measurements being found. In the realm of actual decisions made, two negative examples were given. Both had ABC findings used to justify resource curtailment decisions. The most positive response example was “Improving quality of life programs, plus a \$200K savings identified.” Overall, based on the responses, this variable was misunderstood by most of the respondents.

Table 26. Research Variable 7

Variable 7	EFFECTIVENESS / EFFICIENCY	Effectiveness is the ability of the ABC system to answer management's questions. Efficiency is the perceived ratio of benefits to cost of the process.
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**Variable Analysis.** The data used to determine this variable were found in Measurement Question seven of survey #2 as well as comments from opinionated electronic mail. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 27. Research Variable 7 Ethnographic Analysis

Branch	Description	Rate	Count		
1000	Response	25%		Sub-branches of this tree	
1100	Relevant Findings	23%		1110	Local Definitions 5
1110-49	Positive Response	8%	8	1120	Results Oriented Responses 3
1150-99	Negative Response	15%	15		
1900	Irrelevant Findings	2%		1160	Leadership Problems 6
1910	Historical	1%	1	1170	Data Problems 3
1950	Spurious	1%	1	1180	Mistrust of Consultants 3
1990	Incoherent	0%	0	1190	Too Early to Tell 3.
2000	Non-Response	75%			
2100	Blank on Survey	26%	26		
2200	From Opinion Email	50%	50		

Responses were low on this variable due to this variable being dependent on the second survey. However, many of the electronic mail messages provided more insight to this variable than anything else, and much of that negative. Effectiveness was hindered by two main factors, management not using the ABC information and data intensity being too cumbersome. With the exception of a few TRADOC examples, consultants were looked upon unkindly in light of promises made and promises delivered. For example, consultants were accused of selling partial software solutions, where increasing the required number of activities cost thousands of dollars. Another example was where "final" study reports called for more studies to be accomplished in order to completely answer the study question. Overall, effectiveness was hindered by management not using the findings and efficiency was found lacking due to the cost of data collection to the benefits received. The question on the survey was criticized by an underlying assumption of management use would contribute to effectiveness. The complaint most commonly heard was that effectiveness was in how the soldier customer was supported, not in how management chooses to react to the reports.

There were some positive responses to this variable. Two lauded their management for taking action on the findings. A third response was veiled. In One instance where as when the true cost of their operations was determined and then compared to industry and similar units, the decision was made not to release their findings outside their office. "Check again in six months, and ask us again" indicated that they were actively trying to improve their operations based on the ABC analysis.

**Investigative Question 1-5 Analysis:** Based on the supporting variables for this investigative question, *What performance measures are used in measuring effectiveness and efficiency?* the following has been determined.

Generalized performance measures of “real cost” factors and “value added” determinants are the positive answers to the first part of this question. Effectiveness came in two perspectives, One from the soldier (or customer) point of view, and the other from the manager. Efficiency was graded on whether the benefits were worth the effort. Management support represented the key denominator, often defined with a statement concerning management’s willingness to do something with the ABC information. Overall, the field judged themselves harshly on effectiveness and efficiency.

**Clause Analysis: Effective and Efficient.** From the investigative questions supporting this clause, the following has been determined.

The key to effectiveness and efficiency lies in the hands of the management. The common theme within the clause analysis was the ability for management to use the information provided them to make decisions to affect operations to benefit the customer first, and then themselves. Only where enthusiastic leadership and customer focus was reported as present was effectiveness and efficiency documented.

The fourth and last clause found in Research Question One is “flourish.” The following section describes this clause in terms of supporting variables and investigative questions.

## Flourish

Investigative Questions 1-6, 1-7, 1-8, and 1-9 are associated with the “flourish” clause. Below are listed these Investigative Questions with supporting variables.

Table 28. Investigative Question 1-6 and Research Variable 8

IQ: 1-6.	<i>Given time and resources, where would next apply ABC principles?</i>		
Variable 8	<b>FERTILE GROUND</b>	Those organizational activities which are ripe for ABC implementation.	

**Variable Analysis.** The data used to determine this variable were primarily found in Measurement Questions 10 and secondarily in questions three and four, all of survey #1. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 29. Research Variable 8 Ethnographic Analysis

Branch	Description	Rate	Count	
1000	Response	43%		<b>Sub-branches of this tree</b> 1110 BASOPS 14 1120 Prime Mission 5 1130 Material & Maintenance 5 1150 Medical Services 4 1160 Training 4 1180 Other General Areas 2  1190 “Where Not To” Answers 4.
1100	Relevant Findings	38%		
1110-49	Positive Response	34%	34	
1150-99	Negative Response	4%	4	
1900	Irrelevant Findings	5%		
1910	Historical	1%	1	
1950	Spurious	3%	3	
1990	Incoherent	1%	1	
2000	Non-Response	57%		
2100	Blank on Survey	11%	11	
2200	From Opinion Email	47%	47	

There is much optimism in the field as to where ABC principles could be applied successfully. One sage answer did not give a specific area but lent some wisdom: “Pick the fruit close to the ground first.” This answer described the strategic approach they used



as well as indicating that ABC did not require a 100% implementation. If an organization had many activities, but only six that constituted the bulk of the efforts, than those activities beyond those six offering little significant impact need not to be modeled.

In summary, those areas which promised the most immediate benefits are the most fertile. Also, as echoed in previous investigative question findings, the need for success stories was repeated in many of these answers. Specifically, BASOPS received the distinction of being the most repeated answer..

Table 30. Research Variable 9

Variable 9	CATALYSTS FOR ABC GROWTH AND USE.	Those environmental and leadership factors which, when present, promote the implementation of ABC.
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**Variable Analysis.** This variable was defined in Investigative Question 1-4. As it pertains to this Investigative Question, the following has been determined.

There were three catalysts determined: An ABC champion, an active support agency with a track record of success, and the promise of an ABC friendly financial accounting system. Many described an ABC friendly system as one which tracked data in ways and in categories in which information could be automatically entered into ABC models. The underlying assumptions of each catalyst was the presence of local and senior leadership support and sufficient resourcing of the ABC efforts.

**Investigative Question 1-6 Analysis:** Based on the supporting variables for this investigative question, *Given time and resources, where would you next apply ABC principles?* the following has been determined.

The question assumes with “given time and resources” that a positive leadership environment exist within the organization. With support agencies in place, and the promise of an ABC friendly financial accounting system, the areas of base operations (BASOPS), material and maintenance activities, prime mission activities, medical services, and training environments are the most ripe for ABC.

Table 31. Investigative Question 1-7 and Research Variable 10

IQ: 1-7.	<i>Why did an organization elect not implement ABC?</i>	
Variable 10	REASONS NOT TO IMPLEMENT ABC.	The specific reasons ABC were not considered, considered inadequate, or thought to be unworthy of resources.

**Variable Analysis.** The data used to determine this variable was found in Measurement Question 10 and secondarily in questions five and six, all of survey #1. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 32. Research Variable 10 Ethnographic Analysis

Branch	Description	Rate	Count	
1000	Response	43%		
1100	Relevant Findings	37%		
1110-49	Positive Response	19%	19	
1150-99	Negative Response	18%	18	
1900	Irrelevant Findings	6%		
1910	Historical	2%	2	
1950	Spurious	4%	4	
1990	Incoherent	0%	0	
2000	Non-Response	57%		
2100	Blank on Survey	11%	11	
2200	From Opinion Email	47%	47	

Sub-branches of this tree		
1110	"Wait & See" Cautiousness	4
1120	Data Difficulties	3
1130	Unfamiliarity	6
1140	Unwise investment	5
1150	Other Barriers	1
1160	Change for Change Sake	3
1170	Loss or Lack of Need	8
1180	Misuse of Data	4
1190	Lack of Resources	3.

There was an even distribution of reasons why not to implement ABC in the field. Of the positive responses, one third stated they did not understand ABC, and two thirds indicated they did and believe ABC would produce more problems than benefits. Of the negative responses, the most prevalent response was no requirement for ABC information. One example was Foreign Military Sales (FMS). They explained that the cost charged for weapon systems delivered to other countries was more politically driven, and not a function of their office's effectiveness to deliver to the products.

**Investigative Question 1-7 Analysis:** Based on the supporting variables for this investigative question, *Why did an organization elect not implement ABC ?* the following has been determined.

There were many reasons not to implement ABC. The weakest reason was unfamiliarity with Activity-Based Costing, which surprisingly was a high percentage of respondents. Of the negative responses, it became clear that Activity-Based Costing is not a "silver bullet" which can be applied universally. Specific areas where ABC would not be a good area to implement are those areas where data collection cost was prohibitive (in

areas such as tracking supplies consumed by an activity) and where the mission of the activity would not benefit from ABC statistics and findings.

Table 33. Investigative Question 1-8 and Research Variable 11

IQ: 1-8.	<i>What are they using instead?</i>	
Variable 11	SUBSTITUTE METHODOLOGY	Other models or procedures used to provide detailed costing information.

**Variable Analysis.** The data used to determine this variable were found in Measurement Question five of survey #2 and in the opinionated electronic mail received. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 34. Research Variable 11 Ethnographic Analysis

Branch	Description	Rate	Count	
1000	Response	11%		
1100	Relevant Findings	9%		
1110-49	Positive Response	7%	7	
1150-99	Negative Response	2%	2	
1900	Irrelevant Findings	2%		
1910	Historical	0%	0	
1950	Spurious	2%	2	
1990	Incoherent	0%	0	
2000	Non-Response	89%		
2100	Blank on Survey	34%	34	
2200	From Opinion Email	55%	56	

Sub-branches of this tree			
1110	Other systems		4
1120	Other reasons		1
1130	Traditional Accounting		2
1150	Premature to evaluate		2.

This was another variable dependent on the second survey responses. Besides those, six other responses came from electronic mail. Two of the substitute systems were “stove-pipe” systems, and two claimed that all the managerial accounting they needed was

available already in the existing Federal Accounting System. One mentioned that “Service-Based Accounting (SBA)” was more practical for their purposes.

**Investigative Question 1-8 Analysis:** Based on the supporting variables for this investigative question, *What are they using instead?* the following has been determined.

The most accurate answer to this Investigative Question is “not much.” The field of managerial accounting seems to an unexplored area by many agencies. The response seems to justify a conclusion that managers are either using ABC or they do not manage the costs of their organization beyond tradition methodologies. This analysis coincides with the response to the “areas ripe for ABC” investigate question.

Table 35. Investigative Question 1-9 and Research Variable 12

IQ: 1-9.	<i>What related problems will they continue to face?</i>	
Variable 12	PROBLEMS WHICH ABC DID NOT CURE.	Identified inadequacies of an ABC solution.

**Variable Analysis.** The data used to determine this variable were found in Measurement Question five of survey #2 and in the opinionated electronic mail received. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 36. Research Variable 12 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree
1000	Response	23%		1110 Paradigms 2
1100	Relevant Findings	20%		1120 Budget Problems 1
1110-49	Positive Response	5%	5	1130 Traditional Accounting Probs 2
1150-99	Negative Response	15%	15	
1900	Irrelevant Findings	3%		1150 Leaders w/minds made up 4
1910	Historical	1%	1	1160 Silver Bullet mind sets 3
1950	Spurious	2%	2	1170 The Ones ABC caused 5
1990	Incoherent	0%	0	1190 To early to tell 3.
2000	Non-Response	77%		
2100	Blank on Survey	21%	21	
2200	From Opinion Email	56%	57	

Even though there are many categories listed, the paradigm problems (1110) and leadership problems (1150) can be combined. Both described those situations where decisions that effect cost are not based on cost. The point that the military, while it has business areas, is not a business was made in several surveys. One stated that in their severely constrained resource environment, resources committed to luxury accounting beyond that directed by regulation needed to be directed to readiness priorities. Another response from a line unit was that ABC, as well and unit costing initiatives, fee-for-service, and other resource management services were not intended to help the soldier but solely to increase the staff of the headquarters. For example, staff was increased to manage telephone bills because someone thought there was abuse in this area. The line unit respondent could not understand how a \$30,000 a year employee could be justified, along with the problem of tracking all the phone calls, compounded with the line units new task of tracking all calls. Effective management could of solved any abuse problem, but expansion of staff and data collection was the headquarters response. They asked "knowing that the telephone bill had to be paid anyway, what was the return on

investment for the diverting of the additional resources?” This did not mean that resource consumption did not have to be managed, but input from the users needed to be inserted in the resource accountability decision processes.

The other frequent response was that ABC, and especially in the data collection area, can cause even the best intentioned analysts to give up trying. These problems were often related to the traditional accounting system problems. Even though there are many documented ways in the private sector of getting around the cost of data collection, none surveyed in this research reported any innovative methods or success.

One of the greatest disappointments voiced by leadership was the unfulfilled expectation that ABC would help relieve budgetary pressures. One comment from a HQDA respondent said ABC was a methodology to justify planned budget decrements. One response from overseas said ABC had been the chosen methodology to determine which kaserns would be closed. Nobody suggested any expectation that ABC would have an impact on Congressional appropriations or with the Department of the Army budget process.

**Investigative Question 1-9 Analysis:** Based on the supporting variables for this investigative question, *What related problems will they continue to face?* the following has been determined.

Activity-Based Costing has been marketed as a “silver bullet” by many “champions.” While ABC provides excellent cost accounting information, the problems inherent to the military still exist. Budgetary pressures are not always a function of

efficiency and effectiveness, and as long as traditional accounting systems exist, their problems will still plague the analyst and manager alike. Many perceived that military decisions which drive cost are not seldom made on the basis of cost.

**Clause Analysis: Flourish:** From the Investigative Questions supporting this clause, the following has been determined.

The clause analysis breaks into a two part question. It has been shown ABC can flourish almost anywhere there is positive leadership. Catalysts for success are the presence of willing support agencies and a promise of an ABC friendly federal accounting system. Specific areas, in order, are BASOPS, prime mission, material, medical services, and training. The best answer is where the ratio of expected benefits to expected costs is the greatest. The second part of the question is where will ABC not flourish. Notably, the first item is where managers do not consider cost in their decision making process. Next is that ABC should not be considered where the cost of data collection is prohibitive. In summary, a fertile environment is where there are no existing barriers in leadership, in data collection, or in mission.

**Research Question One Analysis:** From the analyses of the clauses found in the Research Question “*What kind of policy guidance is needed to provide a fertile environment for Activity-Based Costing to be effective, efficient, and flourish in the US Army?*” the following has been determined.

According to the responses received, there is less complaint about a bad policy than having no policy. Policies requested were those assisted ABC practitioners to



remove existing barriers and to provide some standardization across the Service. A fertile environment can be defined as one where leadership is active, regardless of mission. For leadership to be active, ABC must provide value and pays for itself in efficiencies and effectiveness. In order to flourish, all the indicators of success have to be “green.” These indicators are in leadership, reasonable data collection methods, and a cost oriented decision process. In summary, the surveys from the users indicate that generally respondents are starving for guidance, and are willing to make ABC work, given the resources and support, in the areas which show the most promise of benefits for minimal cost.

#### **ANALYSIS OF RESEARCH PROPOSITION ONE:**

Based as the answer to Research Question One, Research Proposition One, *“Those implementing ABC principles would rather not receive guidance and assistance from Headquarters, Department of the Army”* is rejected based on the following points:

1. Those who champion ABC have stated that they are anxiously awaiting guidance, good or bad, from policy making organizations at the DA level. They are serious about implementing Activity-Based Costing but do not want to run the risk of having to rework their systems due to the potential of contradictory future guidance.
2. ABC champions indicated a preference for help from DA agencies rather than rely on contractors and consultants. The research found many examples where users have requested and received help from DA agencies. Most of the success stories received in this research effort have been from such relationships.

## Research Proposition Two

**Background.** Research Proposition Two was based on the following Research Question. The objective dealt exclusively with motivation and methods discovered from the respondents.

Table 37. Objective Two

<b>Objective Two:</b>	Explore the purpose for which Activity-Based Costing is being implemented in the US Army, and how the information gained from Activity-Based Costing reporting is or will be used by management.
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The corresponding Research Proposition supports the intent of the objective even though not comprehensively. Nevertheless, Research Proposition is the appropriate measuring device to determine the ABC “principles” landscape. The analysis of this proposition provides insights to reaching the Research Question. The statement of the proposition is as follows:

**RESEARCH PROPOSITION 2:** Activity-Based Costing was implemented as a long term cost management response to declining budgets. Reporting information received from Activity Cost Reports has helped management understand their business area better, but has not lead to internally generated budget reducing measures.

Figure 14. Research Proposition Two

**Evaluation.** The analysis of the variables, investigative questions, and research questions supporting this proposition have determined that Research Proposition Two cannot be rejected, and was accepted with qualification. The result was based on the following evidence gleaned from data.

## Research Question Two.

*For what purpose has Activity-Based Costing principles been implemented in the US .  
Army, and how successful has management been in using the reported data?*

Figure 15. Research Question Two

Research Question Two supports Research Proposition Two, Research Question Two, Management Questions Two (Methodologies) and Three (Software). The answer to this Research Question has five parts, one for each underlined clause.

### *Purpose*

Investigative Question 2-1 is associated with the “purpose” clause. Below are listed these Investigative Questions with supporting variables.

Table 38. Investigative Question 2-1 and Research Variable 13

IQ: 2-1.	<i>What were the motivations behind implementing ABC ?</i>	
Variable 13	MOTIVATION	Specific (+) reasons why ABC was implemented, and (-) problems solved.

**Variable Analysis.** The data used to determine this variable were found in Measurement Questions 12 and 14 of survey #1. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 39. Research Variable 13 Ethnographic Analysis

Branch	Description	Rate	Count	
1000	Response	47%		
1100	Relevant Findings	47%		
1110-49	Positive Response	34%	34	
1150-99	Negative Response	13%	13	
1900	Irrelevant Findings	0%		
1910	Historical	0%	0	
1950	Spurious	0%	0	
1990	Incoherent	0%	0	
2000	Non-Response	53%		
2100	Blank on Survey	12%	12	
2200	From Opinion Email	42%	42	

Sub-branches of this tree	
1110	Only Survey Suggested Areas 8
1120	Other Areas 14
1130	Command Directed 10
1140	General Positive Response 2
1150	No Plans 8
1160	General Negative 4
1190	No opinion 1.

This Measurement Question produced the largest variety of answers. The single most common answer was that ABC was "command directed" with very little explanation. The following table tabulates the motivations reported in the surveys.

Table 40. Motivation for ABC Implementation

Categories	Surveys	E Mails	Percent
Survey Suggestions Areas			
Product Costing	6	2	9.52%
Process Improvement	7	2	10.71%
Budgeting	5	1	7.14%
Performance Measurement	8	2	11.90%
Cost Reduction	4	1	5.95%
Down-Sizing	2	3	5.95%
Business Process Re-Engineering	4	3	8.33%
Command Directive	4	7	13.10%
Benchmarking	5	1	7.14%
Other			
Controllable / Uncontrollable Costs	1	0	1.19%
"True Costs", Cost Management Initiatives	1	3	4.76%
Congressional Interest	1	0	1.19%
Modeling Data Base	1	0	1.19%
General Intangibles	0	1	1.19%
Award Competition	0	1	1.19%
Means to live within budget	0	1	1.19%
Decision Making	0	2	2.38%
Competition with Industry	0	1	1.19%
Identification of Non-Value Added Activities	0	1	1.19%
Hot Topic Motivation, ( like TQM fad )	0	3	3.57%

The respondents were not limited to one area for motivation, and in general, the surveys answered with four or more categories. The electronic mail responses generally address one motivation. The general negative answers contained many of the same positive motivational factors, but with the implication that ABC was being promoted for incorrect reasons. One of the prevalent negative answers was that ABC was like Total Quality Management (TQM) and is a fad that will be hot for a while and then wane.

**Investigative Question 2-1 Analysis:** Based on the supporting variables for this Investigative Question, "*What were the motivations behind implementing ABC ?*" the following has been determined.

The primary motivation for Activity-Based Costing was because of command directives. The remaining reasons were often mentioned as why commanders directed the implementation of ABC. These reasons were, in order: Performance Measurement, Process Improvement, and Product Costing. Cost management initiatives was a popular response from the opinionated electronic mail received.

One of the answers which the researchers hoped to receive was the motivation to calculate the costs of surge and wartime reserve capacity. This answer receiving little mentioned. It was determined by Coopers and Lybrand that at least one of the depots had much in the way of excess capacity. Maintenance and other related activities within this excess capacity was considered non-value added functions. One negative respondent explained that this surge capacity was needed in time of build up and war, and that targeting this area for elimination (recommended by an ABC consultant) should not be a

pure cost decision. In this case, ABC showed potential to could become the ruin or champion of strategic capacity planning.

Of the negative opinion e-mail, which came from both resource managers and line units, ABC was placed in the category of a management fad. Many of these opinions said that if it was a fad, it was better to wait it out, just like TQM. If ABC wasn't a fad, then there would be a success base to build upon. One respondent said in their comment about the timing of ABC implementation that they were willing to let somebody else be on the "bleeding edge" of technology.

**Clause Analysis: Purpose.** From the Investigative Questions supporting this clause, the following has been determined.

The motivations behind Activity-Based Costing are primarily due to command directive based on expected benefits from performance measurement, process improvement, and product costing. Activity-Based Costing has not only been seen as a means to improvement, but also as an end in itself. ABC has been compared to TQM, and management must assess if the benefits of implementing ABC out weigh the costs incurred.

### *Principles*

Investigative Question 2-2, 2-3, and 2-4 are associated with the "principles" clause. Below are listed these Investigative Questions with supporting variables.

Table 41. Investigative Question 2-2 and Research Variable 14

IQ: 2-2.	<i>What types of data is being captured?</i>	
Variable 14	CAPTURED DATA	Specific metrics which their ABC model considers relevant, hopefully with some insight to manual or automated capturing methods.

**Variable Analysis.** The data used to determine this variable were found in Measurement Question ten of survey #2 and veiled hints in opinionated surveys. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 42. Research Variable 14 Ethnographic Analysis

Branch	Description	Rate	Count	
1000	Response	26%		Sub-branches of this tree 1110 Costing Metrics 6 1120 Performance Metrics 8 1130 Both (Activity) 7 1140 Other General Positive 2 1150 General Negative 3.
1100	Relevant Findings	26%		
1110-49	Positive Response	23%	23	
1150-99	Negative Response	3%	3	
1900	Irrelevant Findings	0%		
1910	Historical	0%	0	
1950	Spurious	0%	0	
1990	Incoherent	0%	0	
2000	Non-Response	74%		
2100	Blank on Survey	28%	28	
2200	From Opinion Email	47%	47	

This Measurement Question produced answers that were difficult to categorize. Of the costing metrics, direct and fixed costs were a common general answer. Most of these answers were base operation (BASOP) costs. Logistics dominated the performance metrics. Of the activity answers, story board and Integrated Definition Methodology (IDEF) modeling metrics were identified and used to count repetitions or categorize inputs.

Regarding automation, only two, (and a veiled hint in a third) had automated entries into their systems. The remaining 21 responses seemed to require searching for information not readily found in the accounting systems and then making data entries. Nobody complained about capturing this data, except for one response that commented that any metric not used by management is for naught.

**Investigative Question 2-2 Analysis.** Based on the supporting variables for this Investigative Question, “*What types of data are being captured?*” the following has been determined.

Captured data for ABC systems consist of both costing and performance metrics. Of these costs, both direct and indirect costs have been earmarked for collection. Only a few metrics have automated entries, leaving the majority of items requiring investigation and data entry.

Table 43. Investigative Question 2-3 and Research Variable 15

IQ: 2-3.	<i>What costs are excluded from your ABC models?</i>	
Variable 15	EXCLUDED COSTS	Those metrics which were considered too hard to capture, irrelevant, or which a proxy Variable could be used.

**Variable Analysis.** The data used to determine this variable were found in Measurement Question eleven of survey #2. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:



Table 44. Research Variable 15 Ethnographic Analysis

Branch	Description	Rate	Count
1000	Response	4%	
1100	Relevant Findings	4%	
1110-49	Positive Response	2%	2
1150-99	Negative Response	2%	2
1900	Irrelevant Findings	0%	
1910	Historical	0%	0
1950	Spurious	0%	0
1990	Incoherent	0%	0
2000	Non-Response	96%	
2100	Blank on Survey	39%	39
2200	From Opinion Email	57%	58

Sub-branches of this tree

1110	Other General Positive	2
1150	General Negative	2.

Insufficient data was obtained to draw conclusions on the variable. The response indicates that either the question was confusing or implementing sites have not arrived at the point of system maturity or definition to respond to this question. Other questions indicated that much of the needed data were difficult to capture, but none had reported that any metrics were excluded due to that difficulty.

**Investigative Question 2-3 Analysis.** Based on the supporting variables for this Investigative Question, “*What costs are excluded from your ABC models?*” the following has been determined.

The answer to this question can not be drawn from the survey responses. No metric was reported as too difficult as to exclude it. Considering the numerous comments from the field about the difficulties in data collection, it was interesting that nobody reported that some model inputs were too difficult to obtain. The lack of responses either indicated the infancy of the ABC systems or the confusion from the respondents as to what was asked, or both

Table 45. Investigative Question 2-4 and Research Variable 16

Variable 16	ALLOCATED COSTS	Those costs (sunk, fixed, direct, etc.) that were used in ABC calculations.
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**Variable Analysis.** The data used to determine this variable were found in Measurement Question twelve of survey #2. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 46. Research Variable 16 Ethnographic Analysis

Branch	Description	Rate	Count
1000	Response	5%	
1100	Relevant Findings	5%	
1110-49	Positive Response	4%	4
1150-99	Negative Response	1%	1
1900	Irrelevant Findings	0%	
1910	Historical	0%	0
1950	Spurious	0%	0
1990	Incoherent	0%	0
2000	Non-Response	95%	
2100	Blank on Survey	40%	40
2200	From Opinion Email	55%	56

Sub-branches of this tree

1110	Other General Positive	2
1120	Specific Response	2
1150	General Negative	1.

Insufficient data was obtained to conduct analysis or draw conclusions. The response indicates that either the question was confusing or that sites have not arrived at the point of system maturity or definition to respond to this question. Sunk costs were not addressed in any of the responses. An example of an excluded cost mentioned was the costs associated with layers of supervision, such as including slices of the subcommand staff, the MACOM staff, DA staff, DoD staff, Congressional and Executive Branch costs in the models.

**Investigative Question 2-4 Analysis:** Based on the supporting variables for this Investigative Question, "*What costs are excluded from your ABC models?*" the following has been determined.

The answer to this question can not be drawn from the survey responses. One response, which cannot be assumed to be true for all, is the costs associated with layers of management outside the immediate organization. The lack of responses either indicated the infancy of the ABC systems or the confusion from the respondents as to what was asked.

**Clause Analysis: Principles:** From the Investigative Questions supporting this clause, the following has been determined.

The term "principles" implies in the clause of this Research Question the basic activity-based costing objectives of defining direct and indirect activities in terms of identifiable metrics. The types of metrics and costs this research is primarily interested in is captured data, excluded costs, and allocated costs.

Data captured for ABC systems consist of both costing and performance metrics. Of these costs, both direct and indirect costs have been earmarked for collection. Only a few metrics have automated entries, leaving the majority of items requiring investigation and data entry. Of the excluded costs and allocated costs, an insufficient number of responses precluded any variable definitions. Based on the lack of response, appears that the majority of ABC implementation efforts are still in their infancy.

## Implementation

Investigative Question 2-5 is associated with the “implementation” clause. Below are listed these Investigative Questions with supporting variables.

Table 47. Investigative Question 2-5 and Research Variable 17

IQ: 2-5.	<i>What tools were most beneficial in developing ABC ?</i>	
Variable 17	SOFTWARE	Any COTS or developed programs used to implement ABC models.

**Variable Analysis.** The data used to determine this variable were found in Measurement Question thirteen of survey #1 and question seven of survey #2. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 48. Research Variable 17 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree	
1000	Response	28%		1110	Commercial Software 2
1100	Relevant Findings	28%		1120	Organic, Gov't Owned 13
1110-49	Positive Response	23%	23	1130	Hybrid Solutions 5
1150-99	Negative Response	5%	5	1140	Other General Positive 3
1900	Irrelevant Findings	0%		1150	Commercial - Negative 3
1910	Historical	0%	0	1190	General Negative 2.
1950	Spurious	0%	0		
1990	Incoherent	0%	0		
2000	Non-Response	72%			
2100	Blank on Survey	24%	24		
2200	From Opinion Email	49%	49		

Although there are many commercial packages available, mention of pure commercial software packages were few with all being consultant provided solutions. Also, commercial off the shelf (COTS) software received the most complaints as being inadequate. Of the government owned solutions, three were mainframe oriented, six were

PC spreadsheet custom models, and two were owned stove-pipe solutions. The hybrid solutions were add-ons to PC software suites or interfaces to larger systems. The following software packages were mentioned by name.

Table 49. ABC Software

Name	Platform	User
ABBCM, Activity Based Budgeting, Costing and Management	Mainframe	DFAS
TurboBPR (Business Process Re-Engineering)	PC (not given)	DoD
SIFS	Mainframe (not given)	not given
MEPRS (standard medical costing)	Mainframe (not given)	DoD
VISIO	Mainframe Interface	USAFISA
ABC +	PC	not given
Easy ABC	PC	Army

Many of the responses stated that PC software was an important part of the ABC development package. When PC products were mentioned, except for one reference to Lotus-123 software, the remainder specifically referenced Microsoft Office products.

Table 50. Research Variable 18

Variable 18	DEVELOPMENT TOOLS	Any tools used to develop the ABC model, to include software, books, or methodologies provided by consultants.
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**Variable Analysis.** The data used to determine this variable were found in Measurement Question thirteen of survey #1 and various questions on survey #2. The

responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 51. Research Variable 18 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree
1000	Response	22%		1110 Commercial 6
1100	Relevant Findings	19%		1120 Organic, Gov't Owned 5
1110-49	Positive Response	14%	14	1130 Hybrid Solutions 2
1150-99	Negative Response	5%	5	1140 Other General Positive 1
1900	Irrelevant Findings	3%		1150 Commercial - Negative 1
1910	Historical	0%	0	1190 General Negative 4.
1950	Spurious	0%	0	
1990	Incoherent	3%	3	
2000	Non-Response	78%		
2100	Blank on Survey	26%	26	
2200	From Opinion Email	52%	53	

Many responses to this question mirrored the previous variable. Two distinct answers were the Integrated Definition Methodology (IDEF) modeling (2 instances) and story boarding (3 instances). IDEF modeling seems to be a bottom up approach preferred by consultants, while the story board approach is a favorite within AMC. One of the older efforts using ABC principles was reported from Europe. This modeling effort was called Budget-Based Analysis and was built by a team from West Point. Many of the software packages previously mentioned were mentioned once for this variable definition.

**Investigative Question 2-5 Analysis:** Based on the supporting variables for this Investigative Question, “*What tools were most beneficial in developing ABC?*”, the following has been determined.

This question has a two part answer. The methods specifically mentioned and used to develop ABC models were IDEF modeling, story boarding, and custom application programming (stove-pipe) solutions. All of these techniques produced benefits, but not enough data were gathered to determine “most beneficial.” The second part of the answer is software. Once in place, commercial consultants often provided their software, while DoD consultants used DoD owned software. Augmenting DoD some solutions were software interfaces built between existing software packages, or built systems based on PC software. All the home grown solutions were built upon PC software, such as Microsoft Excel and Microsoft Access.

**Clause Analysis: Implementation.** From the Investigative Questions supporting this clause, the following has been determined.

Implementation is the combination of an approach and a software solution. The two main approaches were bottom-up and top-down. IDEF and story boarding have been used for both. IDEF is preferred by consultants and is seen mostly in bottom-up systems design. AMC uses the story board in both approaches and preferred to build custom systems using existing PC software. Of the software solutions, DoD owned software and Microsoft products are the most popular.

### How Successful

Investigative Questions 2-6, 2-7, 2-8, and 2-9 are associated with the “how successful” clause. Below are listed these Investigative Questions with supporting variables.

Table 52. Investigative Question 2-6 and Research Variable 19

IQ: 2-6.	<i>What are the most important and useful features in their models ?</i>		
Variable 19	USEFUL FEATURES	Those things which their ABC model does well and is used by managers.	

**Variable Analysis.** The data used to determine this variable were found in Measurement Question thirteen of survey #1 and various questions on survey #2. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 53. Research Variable 19 Ethnographic Analysis

Branch	Description	Rate	Count
1000	Response	12%	
1100	Relevant Findings	12%	
1110-49	Positive Response	9%	9
1150-99	Negative Response	3%	3
1900	Irrelevant Findings	0%	
1910	Historical	0%	0
1950	Spurious	0%	0
1990	Incoherent	0%	0
2000	Non-Response	88%	
2100	Blank on Survey	34%	34
2200	From Opinion Email	54%	55

Sub-branches of this tree		
1110	Inputs (automation)	1
1120	Reports	7
1130	Model Internals	1
1150	General Negative	3.

Of the three areas given positive comments, system outputs (reports) received the greatest praise. These reports, called by one as “what happened reports” gave management insight on true costs, what drives costs, and which activities add value to



operations. Of the negative comments concerning ultimate use, concerns were raised that customers, and not management, should be the beneficiary of the reports. It was noted that very little has been done so far in automated inputs. Overall, only 9% of the responses reported benefits, which indicates that generally, Army wide, systems may not have matured enough to be paying for themselves yet.

**Investigative Question 2-6 Analysis:** Based on the supporting variables for this Investigative Question, “*What are the most important and useful features in their models?*” the following has been determined.

By far, the reported most important and most useful features of the ABC models are outputs provided to management. Such reports provided more accurate costs of doing business and identified non-value added activities. The lack of reporting on the benefits suggests that many of the ABC systems in place have not yet matured.

Table 54. Investigative Question 2-7 and Research Variable 20

IQ: 2-7.	<i>What are the least useful features in their model ?</i>	
Variable 20	LESS USEFUL FEATURES	Those things which their ABC model does but provides little value added.

**Variable Analysis.** The data used to determine this variable were found in Measurement Questions seven and eight of survey #2 and various responses from electronic mail. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 55. Research Variable 20 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree
1000	Response	4%		
1100	Relevant Findings	4%		
1110-49	Positive Response	2%	2	
1150-99	Negative Response	2%	2	
1900	Irrelevant Findings	0%		
1910	Historical	0%	0	
1950	Spurious	0%	0	
1990	Incoherent	0%	0	
2000	Non-Response	96%		
2100	Blank on Survey	38%	38	1110 Model Incompleteness 2
2200	From Opinion Email	58%	59	
				1150 Too early to tell 2.

This variable cannot be fully defined based on the lack of responses from the field. Of the responses, half indicated that it was too early to tell the utility of all the aspects of their models. Of the other responses, the utility of the whole system was questioned because their system could not fully answer their management's questions.

**Investigative Question 2-7 Analysis:** Based on the supporting variables for this Investigative Question, "*What are the least useful features in their model?*" the following has been determined.

The surveys responses indicated management's general lack of experience of management with ABC systems. With gained experience, and maturing of the systems more confidence in the reports is anticipated. Currently, a lack of confidence in ABC has prompted some questioned the value of the installed or proposed systems. None of the comments indicated any specific area of little utility. This question cannot be fully answered at this time, and needs to be asked again later.

Table 56. Investigative Question 2-8 and Research Variable 21

IQ: 2-8.	<i>What benefits have been realized from ABC implementation ?</i>	
Variable 21	BENEFITS	Tangible and intangible benefits which have come from ABC being implemented within the organization.

**Variable Analysis.** The data used to determine this variable were found in Measurement Question 14 from survey #1 and questions seven and eight of survey #2. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 57. Research Variable 21 Ethnographic Analysis

Branch	Description	Rate	Count	
1000	Response	23%		Sub-branches of this tree
1100	Relevant Findings	23%		1110 Decision Making 2
1110-49	Positive Response	14%	14	1120 Data, True Costs 7
1150-99	Negative Response	9%	9	1130 Intangibles 4
1900	Irrelevant Findings	0%		1140 General Positive Response 1
1910	Historical	0%	0	
1950	Spurious	0%	0	1150 Too early to tell 6
1990	Incoherent	0%	0	1190 General Negative Response 3.
2000	Non-Response	77%		
2100	Blank on Survey	25%	25	
2200	From Opinion Email	52%	53	

Many intangible benefits were reported especially in the area of understanding their operations when they implemented ABC. Hard benefits of \$300,000 were reported by one site. Overall, most of the benefits reported in the surveys were anticipated benefits, which indicates that there are few immediate benefits gleaned from implementing ABC. Overall, the survey responses indicated a general mood of optimism and enthusiasm for what can be gained from implementation of ABC.

**Investigative Question 2-8 Analysis:** Based on the supporting variables for this Investigative Question, “*What benefits have been realized from ABC implementation?*” the following has been determined.

Of the responses, only two have indicated tangible benefits. It was estimated that \$300,000 was saved in one instance, while in the other “credible documentation to justify cuts” was received. Also, quite a few intangible benefits were gleaned from the process of modeling the systems. The remaining benefits, which are all still expectations, have to do with improved decision making benefits and understanding the true costs of operations. Most answers indicated that it was too early to tell, thus indicating the immaturity of the ABC systems in the field.

Table 58. Investigative Question 2-9 and Research Variable 22

IQ: 2-9.	<i>Which costs were the most difficult to track ?</i>	
Variable 22	DIFFICULT COSTS	Those relevant metrics which are difficult to track, and may have required proxies, or completely left of the model.

**Variable Analysis.** The data used to determine this variable were found in Measurement Question 15 from survey #1. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 59. Research Variable 22 Ethnographic Analysis

Branch	Description	Rate	Count	
1000	Response	18%		
1100	Relevant Findings	18%		
1110-49	Positive Response	18%	18	
1150-99	Negative Response	0%	0	
1900	Irrelevant Findings	0%		
1910	Historical	0%	0	
1950	Spurious	0%	0	
1990	Incoherent	0%	0	
2000	Non-Response	82%		
2100	Blank on Survey	27%	27	
2200	From Opinion Email	55%	56	

Sub-branches of this tree		
1110	Costs at Required Detail	4
1120	Contract Costs	1
1130	System Interfaces	2
1140	Mission Instability	3
1150	G&A	4
1160	Political	1
1170	Surge Capacity	1
1180	General Positive Response	2

This question drew a diversity of cost categories that were causing users problems. The most prevalent problems was extracting the required detail for the ABC model from the standard accounting systems. The general and administrative (G&A) costing problems were very similar. Mission instability was mentioned, as best noted by the answer from Europe about the impossibility in keeping up with the changes in scope of missions and services. Overall, most the difficult costs were noted as “never tracked before” pieces of data that were not found at the required level of detail in the standard accounting systems.

**Investigative Question 2-9 Analysis.** Based on the supporting variables for this Investigative Question, “*Which costs were the most difficult to track?*” the following has been determined.

G&A costs were the most difficult to track. The difficulty resided more in lack of required detail in the existing accounting system than in the categorization of cost. The second cause for difficulty in tracking costs was mission instability. Systems were too

inflexible and users were too inexperienced to make quick adjustments in dynamic environments.

**Clause Analysis: How Successful.** From the Investigative Questions supporting this clause, the following has been determined.

The lack of maturity of ABC systems has resulted in few reported tangible and intangible benefits Army-wide. Many benefits, especially in the area of data for decision makers, are expected as the systems mature. Discovery of true costs and the ability to identify non-value added activities are expected to give both customers better prices and the organization targets to realized savings. Also noted were two enemies of the realization of benefits. As long as missions are changing at a fast pace and that detailed information is not available or automated from standard accounting systems, benefits will not out pace the costs of tracking and reporting. All conclusions in this area are qualified by the most common response: that it was still too early to tell concerning these variables.

#### *Reported Data*

Investigative Questions 2-10 and 2-11 are associated with the "Reported Data" clause. Below are listed these Investigative Questions with supporting variables.

Table 60. Investigative Question 2-10 and Research Variable 23

IQ:2-10	<i>What types of reports has management used?</i>		
Variable 23	TYPES OF REPORTS	The outputs from the ABC system that are of use to the command.	

**Variable Analysis.** The data used to determine this variable were found in Measurement Question 14 from survey #1 and question nine from survey #2. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 61. Research Variable 23 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree	
1000	Response	20%		1110	Managerial (local) 7
1100	Relevant Findings	20%		1120	Managerial (multilevel) 3
1110-49	Positive Response	14%	14	1130	Detail (analyst use) 3
1150-99	Negative Response	6%	6	1140	Other (General Positive) 1
1900	Irrelevant Findings	0%		1150	Negative: Managerial 3
1910	Historical	0%	0	1160	Too Early to tell 3.
1950	Spurious	0%	0		
1990	Incoherent	0%	0		
2000	Non-Response	80%			
2100	Blank on Survey	28%	28		
2200	From Opinion Email	52%	53		

Customization to the managers' needs was the most common theme in the survey responses. It was reported that without the managers involvement in the design process the resulting information did not satisfy managers' information requirements and received little use. Other types of reports are those used in justification of pricing decisions, particularly in the BASOPS of and Quality of Life activities. The negative reports were from those locked in inflexible reports and who said it was too early to tell which reports are really of use to the commands.

**Investigative Question 2-10 Analysis:** Based on the supporting variables for this Investigative Question, "*What types of reports have management used?*" the following has been determined.

Management has used a couple types of reports. "Cost of doing business" and "true costs" reports are the most common. The key to use has been reported as customization of the report by management. Items on these reports are measurement units, cost identification and related allocation, controllable versus uncontrollable costs, and reimbursable billing justification. The lack of flexibility in reporting generated the majority of negative comments.

Table 62. Investigative Question 2-11 and Research Variable 24

IQ:2-11	<i>Who is using the report data, and for what purpose?</i>	
Variable 24	REPORT USERS	Consumers of the ABC system.

**Variable Analysis.** The data used to determine this variable were found in Measurement Question nine from survey #2 and general responses from opinionated electronic mail. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 63. Research Variable 24 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree
1000	Response	16%		
1100	Relevant Findings	15%		1110 Analysts 2 1120 Local Managers 9 1130 Local and Higher Mgmt 4
1110-49	Positive Response	15%	15	
1150-99	Negative Response	0%	0	
1900	Irrelevant Findings	1%		
1910	Historical	0%	0	
1950	Spurious	0%	0	
1990	Incoherent	1%	1	
2000	Non-Response	84%		
2100	Blank on Survey	30%	30	
2200	From Opinion Email	54%	55	



Cost accounting reporting has multiple readers, but in this case two specific users of the data are noted. Analysts use the information for service pricing and stocking databases for modeling purposes, but the predominate user of the reports are decision makers. It was noted that in this survey, not only has local management used the reports, but that ABC outputs have been used as foundational data for reports delivered to senior commanders, DoD, and Congress. The purpose of some of these reports is to justify decisions. One example given of closing down the least efficient facilities and kaserns in Europe.

**Investigative Question 2-11 Analysis:** Based on the supporting variables for this Investigative Question, "*Who is using the report data, and for what purpose?*" the following has been determined.

The primary purpose for implementing ABC systems are installed was to provide management information to support good decisions. A secondary customer for these reports is the analyst in the role of setting prices for services, determining break-even thresholds, and for cost modeling. Reported in the responses are several instances where ABC information was used at high levels of government.

**Clause Analysis: Reported Data.** From the Investigative Questions supporting this clause, the following has been determined.

The most important benefits and products received from the ABC systems are the managerial reports they produce. Customization has been determined as key to having

management being able to understand and use the reports. Secondary uses have included cost modeling and price establishment.

**Research Question Two Analysis.** From the analyses of the clauses found in the Research Question, “*For what purpose has Activity-Based Costing principles been implemented in the US . Army, and how successful has management been in using the reported data?*” the following has been determined.

The primary purpose for implementing Activity-Based Costing was to support management decision making regarding performance measurements, process improvements, and product costing. Performance and cost metrics have been used to define the cost of doing business and to establish baselines for improvements. Implementation of these goals have been accomplished with both top-down and bottom-up approaches with the latter the favorite of consultants using IDEF modeling techniques. Very few benefits have actually been realized from ABC systems to date, but many expected tangible and intangible benefits are expected to arrive as systems mature. Management has been the primary recipient of the ABC reports, and information from these have been used successfully to justify critical decisions at all levels of command.

#### **ANALYSIS OF RESEARCH PROPOSITION TWO:**

Based as the answer to Research Question Two, Research Proposition Two “*Activity-Based Costing was implemented as a long term cost management response to declining budgets. Reporting information received from Activity Cost reports has helped*

*management understand their business area better, but has not lead to internally generated budget reducing measures*” was not rejected with qualification on the following points:

1. Activity-Based Costing has been implemented as a long term cost management response to declining budgets. This has been one reason, but more of a symptom of the actual reasons than a primary reason. The primary reasons were management’s stewardship of available funds, fair pricing, and justification for critical decisions.

2. The major intangible benefits received from ABC implementation includes a better understanding of operations and a general paradigm shift from traditional accounting practices.

3. Activity-Based Costing has not led to internally generated budget reduction measures. It is not that ABC cannot lead to that, but because the majority of the systems are still in their infancy. As the systems mature, internally generated cuts, manifested in price reductions for services or the elimination of non-value added activities is expected.

### Research Proposition Three

**Background.** Research Proposition Three was based on the Research Objective that dealt exclusively with policy and which items were critical to respondents.

Table 64. Objective Three

<b>Objective Three:</b>	What is the general status of Activity-Based Costing knowledge in the US Army resource management environment, and discover the extent of training needs to economically promote Activity-Based Costing.
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The corresponding research proposition supports the intent of the objective even though not comprehensively. Nevertheless, research proposition are the appropriate measuring device to determine the ABC “training” landscape. The analysis of this proposition gives ample insights to reaching the Research Objective. The statement of the proposition is as follows:

**RESEARCH PROPOSITION 3:** ABC practitioners would suggest that the best use of training dollars would be to send their commanders to an ABC overview course.

Figure 16. Research Proposition Three

**Evaluation.** The analysis of the variables, investigative questions, and research questions supporting this proposition has resulted in the rejection of Research Proposition Three. The result was based on the following evidence gleaned from the data.

*What is the current US Army training status of ABC principles, how has ABC Training been accomplished, and what future training is still needed..*

Figure 17. Research Question Three

Research Question Three supports Research Proposition Three, Research Objective Three, Management Questions Three (Software) and Four (Training). The results obtained from examining this research question has three parts, one for each underlined clause.

#### *Training Status*

Investigative Questions 3-1 and 3-2 are associated with the “training status” clause. Below are listed the Investigative Questions with supporting variables.

Table 65. Investigative Question 3-1 and Research Variable 25

IQ: 3-1.	<i>What formal or informal ABC instruction has been attended by users ?</i>	
Variable 25	COURSE WORK	Formal ABC relevant course work relevant to users or management.

**Variable Analysis.** The data used to determine this variable were found in Measurement Questions seven, eight, and nine of survey #1 and question 13 of survey #2. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 66. Research Variable 25 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree
1000	Response	32%		1110 Basic "How Too" Course 3
1100	Relevant Findings	32%		1120 Principles Courses 12
1110-49	Positive Response	20%	20	1130 Performance 1
1150-99	Negative Response	12%	12	1140 Intermediate & Advanced 4
1900	Irrelevant Findings	0%		
1910	Historical	0%	0	
1950	Spurious	0%	0	1150 No Training Received 12.
1990	Incoherent	0%	0	
2000	Non-Response	68%		
2100	Blank on Survey	13%	13	
2200	From Opinion Email	55%	56	

Seventy percent of the surveys ignored this issue, which roughly corresponds to the number of non-ABC sites. Of the thirty that responded, half had received intermediate training. Intermediate training also took the form of comments like "most of our staff have business degrees" or the reporting of heavy on-the-job training. The mix of positive respondents was even between analysts and managers, so it can be assumed that management is just as trained as the users. Of the negative responses, none had ABC at their sites, with half of the negative respondents saying they also had no expected need of ABC training. Two responses of trained personnel came from those sites that were not using ABC. Overall, for those who are or would be involved in ABC implementation, it can be concluded the majority of them were familiar with ABC and have received intermediate level training.

**Investigative Question 3-1 Analysis.** Based on the supporting variables for this Investigative Question, "*What formal or informal ABC instruction has been attended by users ?*" the following has been determined.

The level of training for ABC implementations can be concluded to be basic or some intermediate course work. There seems to be an even mix of this training between analysis and management personnel. In this responses, it was implied that job training or possession of business degrees were substitutes for formal ABC course work. About half of those who were ABC sites had no training. With the exception of two sites, sites that were not ABC sites had not had any training in ABC principles.

Table 67. Investigative Question 3-2 and Research Variable 26

IQ: 3-2.	<i>How comfortable are managers with the current level of ABC training within their organization?</i>	
Variable 26	TRAINING STATUS	The current state of saturation of ABC related course work in the organization.

**Variable Analysis.** The data used to determine this variable were found in Measurement Questions seven and eight of survey #1 and question 14 of survey #2. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 68. Research Variable 26 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree	
1000	Response	35%			
1100	Relevant Findings	35%		1110 Very Uncomfortable	11
1110-49	Positive Response	32%	32	1120 Uncomfortable	8
1150-99	Negative Response	3%	3	1130 OK, but need more	8
1900	Irrelevant Findings	0%		1140 Fully Trained	5
1910	Historical	0%	0		
1950	Spurious	0%	0	1150 Training would be premature	1
1990	Incoherent	0%	0	1190 Have no use for training	2.
2000	Non-Response	65%			
2100	Blank on Survey	9%	9		
2200	From Opinion Email	56%	57		

The subjective response from respondents was that there is a general level of discomfort about the current level of ABC training within their organizations. Those responding felt uncomfortable with their training status, and were even more concerned about the managers and users of ABC systems. Of the uncomfortable, a common answer was that two weeks of intense training was needed to become comfortable with ABC. All of those respondents choosing to remain anonymous indicated great discomfort with their level of training. A few negative responses indication was that ABC was not an immediate concern and any ABC training would produce little utility.

**Investigative Question 3-2 Analysis.** Based on the supporting variables for this Investigative Question, *“How comfortable are managers with the current level of ABC training within their organization?”* the following has been determined.

In general respondents were more uncomfortable than comfortable with the current level of ABC training within their organization. From the responses it was gleaned that most organizations would become comfortable with two weeks of training.

**Clause Analysis: Training Status.** From the Investigative Questions supporting this clause, the following has been determined.

For those sites which ABC has been considered or implemented in some form, it can be assumed that there are key personnel with basic or even up to intermediate training. Of these sites, managers report that they are generally uncomfortable with their ABC level of training, and two weeks of training would increase their ability to handle ABC issues.



Of those sites without ABC plans, half had personnel who had some training. Many of these sites indicated that ABC implementation was not planned and ABC training would not be needed.

Overall, the amount of training was high for a voluntary program. The responses seem to indicate ABC is being implemented only where training has occurred. The general level of discomfort reported was also reported as something that could be remedied rather quickly.

### *ABC Training*

Investigative Questions 3-3, 3-4 and 3-5 are associated with the “ABC training” clause. Below are listed these Investigative Questions with supporting variables.

Table 69. Investigative Question 3-3 and Research Variable 27

IQ: 3-3.	<i>How have users been trained? On-the-job, formal instruction, professional development, seminars, other means?</i>	
Variable 27	TRAINING METHODOLOGIES	The approach used by organizations to train their staff and management.

**Variable Analysis.** The data used to determine this variable were found in measurement question 14 of survey #2, but data supporting this definition of this variable was volunteered in many other responses in the survey. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 70. Research Variable 27 Ethnographic Analysis

Branch	Description	Rate	Count	
1000	Response	22%		Sub-branches of this tree
1100	Relevant Findings	20%		1110 Government Provided 5
1110-49	Positive Response	12%	12	1120 Commercial Sources 3
1150-99	Negative Response	8%	8	1130 Internal (OJT) 3
1900	Irrelevant Findings	2%		1140 Mix of Methods 1
1910	Historical	2%	2	
1950	Spurious	0%	0	1150 Training would be premature 8
1990	Incoherent	0%	0	1190 General Negative response 0.
2000	Non-Response	78%		
2100	Blank on Survey	21%	21	
2200	From Opinion Email	57%	58	

The unique situation encountered with this variable was when the question was finally posed to the survey respondents, it was if that they had already answered this question previously and did not take the time to restate their answers. Although many did not answer this one, the general areas were addressed in other questions receiving responses. Of the positive answers, internal training in the form of MACOM resources or help from agencies like the Army Audit Agency (AAA) was the most common. The results of this question may be biased since AMC personnel answered this question more than others. The other responses regarding contract consultants and training also received support, as well as the on-the-job training methodology.

The negative responses received were based on inexperience and not attitude. Most of these respondents answered that within their organization little ABC expertise existed and consultants would have to be used by default. One also mentioned that local colleges could provide needed training in basic and principle courses.

From previous answers, agencies and other government trainers received generally positive evaluations, while consultants received either very good or very bad reviews. It

was noted that training methodology often followed MACOM boundaries. AMC generally seemed to prefer internal governmental training strategies, while Training and Doctrine Command (TRADOC) had used consultants and local colleges in limited, well defined roles. Forces Command (FORSCOM) seemed to prefer consultants exclusively.

In summary, the Army has employed three major training methodologies. The most popular is government experts followed by contract training and consultants. On the job training methods were selected as a viable alternative to formal training.

**Investigative Question 3-3 Analysis.** Based on the supporting variables for this Investigative Question, "*How have users been trained?*" the following has been determined.

Three types of training was mentioned in the responses. Informal training consisted of those who were trained on the job as well as those who possessed knowledge of ABC through their undergraduate education. Formal education came in the forms of MACOM provided training as well as consultant and contract instruction. Training provided by MACOM and DoD agencies generally received praise while contract consultants and trainers generally fell on the extremes of loved or disdained.

Table 71. Investigative Question 3-4 and Research Variable 28

IQ: 3-4.	<i>Who provided training?</i>	
Variable 28	TRAINERS	ABC Education providers.

**Variable Analysis.** The data used to determine this variable were found in Measurement Question 15 of survey #2. Though this was a second survey question, many first survey respondents answered this question indirectly through responses to other Measurement Questions. The definition of this question is given in two forms, by listing actual trainers and by category. The actual responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 72. Research Variable 28 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree
1000	Response	21%		1110 DoD Formal 2
1100	Relevant Findings	21%		1120 Commercial Sources 9
1110-49	Positive Response	20%	20	1130 Gov't Workshop Leaders 7
1150-99	Negative Response	1%	1	1140 Local Schools 2
1900	Irrelevant Findings	0%		1150 Anti-consultant 1.
1910	Historical	0%	0	
1950	Spurious	0%	0	
1990	Incoherent	0%	0	
2000	Non-Response	79%		
2100	Blank on Survey	23%	23	
2200	From Opinion Email	56%	57	

The above categories break down the ABC education providers by source. Of the workshop leaders, all were government employees, three were peers, two were within the MACOM, and two were outside the MACOM. The following is a list providers specifically mentioned in responses. Consultants who mentioned themselves are not listed.

Table 73. ABC Training Providers

DoD Formal	Commercial	Other
Army Management Engineering College Army Audit Agency	ABC Technologies Management Concepts Corporation	Air Force Consultants Internal AMC Trainers (Management Engineering Activity)

**Investigative Question 3-4 Analysis.** Based on the supporting variables for this Investigative Question, “*Who provided training?*” the following has been determined.

Training was provided in by four methods. Thirteen of twenty responses indicated that formal education was provided by commercial sources, local colleges, or from DoD schools. Of the remaining, training was conducted in workshop or on the job formats lead by government employees. FORSCOM respondents did not have the freedom to respond to this question due to ABC consultant contract evaluations during the survey period.

Table 74. Investigative Question 3-5 and Research Variable 29

IQ: 3-5.	Was a consultant used, if so in what role?	
Variable 29	CONSULTANTS	Experts used in the planning and implementation of ABC.

**Variable Analysis.** The data used to determine this variable were found in Measurement Question 16 of survey #2 as well as many volunteer responses in other Measurement Questions. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 75. Research Variable 29 Ethnographic Analysis

Branch	Description	Rate	Count	
1000	Response	28%		
1100	Relevant Findings	27%		
1110-49	Positive Response	17%	17	
1150-99	Negative Response	10%	10	
1900	Irrelevant Findings	1%		
1910	Historical	0%	0	
1950	Spurious	0%	0	
1990	Incoherent	1%	1	
2000	Non-Response	72%		
2100	Blank on Survey	24%	24	
2200	From Opinion Email	49%	49	

Sub-branches of this tree			
1110	ABC Contractors		7
1120	Army, DoD		7
1130	Others		2
1140	General Positive Remarks		1
1150	Unknown		1
1190	General Negative Remarks		9.

From the responses to the measurement question from this variable and from the previous variable, consultants appear to have been used in only limited training roles. Many consultants were listed as those who facilitate ABC implementation, a role not to be confused with contract ABC training. Other comments concerning the role of consultants were insightful. The most common request for consultants was to conduct a study of some sort. One other respondent indicated that integration, and not education was the problem. These respondents advocated a single consultant rather than a host of them. Another negative comment was that consultants gave only advice that lent itself to a for profit organization, and that consultants were not in touch with Department of Defense perspectives. On the other hand, consultants were praised for helping to change mind sets that were barriers to process improvement. Of all the negative responses, consultants were sometimes perceived as self-serving, and sold cheap partial solutions, knowing that within months their robust solution with a hefty price tag would be required.

The following is a table of consultants mentioned (in alphabetical order) in the survey responses. Contractors that mentioned themselves are not included in the list, nor does inclusion on this list indicate respondents had complimentary comments.

Table 76. ABC Consultants

Commercial Consultants	Department of Defense Consultants
ABC Technologies	Army Audit Agency
Baldrige Award Team	Army Surgeon General
Coopers & Lybrand	Arroyo Center
Cost Technology, Inc.	Electronic College of Process Innovation
CPA Consulting Firms	MEA (Army Material Command)
Management Concepts Corporation	RAND Corporation
MPRI	US Military Academy, West Point

**Investigative Question 3-5 Analysis.** Based on the supporting variables for this Investigative Question, “*Was a consultant used, if so in what role?*” the following has been determined.

In the responses, seven commercial consultants and seven governmental consultants were listed. The role of the consultants was first to conduct studies. Other uses were training, advice for specific applications, as part of an ABC solution (with consultant provided software) and general ABC advice services.

It should be noted that the FORSCOM contract had not been awarded at the time of the survey. Many of those respondents did not indicate specific roles as not to violate

source selection fairness policies. It is assumed that the winner of the FORSCOM ABC consulting contract will be providing many consulting services.

**Clause Analysis: ABC Training.** From the investigative questions supporting this clause, the following has been determined.

The intent of this clause was to determine how ABC training had been accomplished. Both commercial and government trainers have been employed, with each MACOM taking on a unique training strategy. AMC prefers government provided trainers, TRADOC prefers formal education from both local colleges and consultants, and FORSCOM is heavily involved with consultants. Training in the medical community could not be determined to be orchestrated. Consultants have not been primary trainers. Informal training, such as workshops and on-the-job peer training has been noted as the primary means to train the users. Formal training has been accomplished by both government and commercial providers. Overall, there does not seem to be one source of training for Activity-Based Costing. As training is needed, supervisors with the advice of their MACOM have independently secured the training needed.

### *Future Training*

Investigative Questions 3-6 and 3-7 are associated with the “future training” clause. Below are listed these Investigative Questions with supporting variables.



Table 77. Investigative Question 3-6 and Research Variable 30

IQ: 3-6.	<i>How much ABC training is needed?</i>	
Variable 30	TRAINING MATERIAL REQUESTED	The areas which respondents feel training would be useful, in terms of course name and content.

**Variable Analysis.** The data used to determine this variable were found in Measurement Questions eight and nine of survey #1. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 78. Research Variable 30 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree
1000	Response	32%		1110 Principles Courses 4
1100	Relevant Findings	32%		1120 Basic & Intermediate 7
1110-49	Positive Response	22%	22	1130 DoD Financial Management 1
1150-99	Negative Response	10%	10	1140 General Positive Response 5
1900	Irrelevant Findings	0%		1150 Senior Leadership 1
1910	Historical	0%	0	1160 Internet Sources 2
1950	Spurious	0%	0	1170 Need Everything 2
1990	Incoherent	0%	0	1180 None 6
2000	Non-Response	68%		1190 General Negative Response 4.
2100	Blank on Survey	13%	13	
2200	From Opinion Email	55%	56	

The most requested course material needed is in the ABC principles and basic and Intermediate courses. To answer how much, one respondent laid out their training strategy as a one day general knowledge seminar for the whole directorate and a 3.5 day seminar for those who will be working directly with ABC. Other non-specific answers ranged from one week to three weeks of training. Senior level courses was mentioned only once as the only need, but many times as part of the training suite needed for the

whole organization. The negative responses came from those who did not perceive a need for ABC.

**Investigative Question 3-6 Analysis.** Based on the supporting variables for this Investigative Question, “*How much ABC training is needed?*” the following has been determined.

From the responses, it seems that between one and three weeks is the required level of training. Training was requested at all levels, from basic courses to senior management courses. Only a few offices considered themselves as fully trained in ABC.

It has been reported in other Investigative Question analyses that training was almost a prerequisite to ABC being implemented at a site. Only 32% responded to this question, and of them one third did not see ABC as part of their future. If reimbursable funding strategies within the Army increase, the need for ABC will increase with it. For those in the silent 68%, it can be assumed that a full suite of ABC training will also be required.

Overall, the question of how much ABC training is needed is answered in terms of time and contents. The recommended approach to training has been a suite, where the complete organization is introduced to the concepts, direct participants are given basic and intermediate course, and management is given instruction on how to best use the information. The average time noted in the surveys was two weeks.

Table 79. Investigative Question 3-7 and Research Variable 31

IQ: 3-7.	<i>What course work aimed at what level given to what audience would best serve the Army in promoting successful implementation of Activity-Based Costing?</i>	
Variable 31	TARGET AUDIENCE (USER / MANAGEMENT LEVEL)	The job title / management level of the attendee which the respondent feels a need exists.

**Variable Analysis.** The data used to determine this variable were found in Measurement Questions nine primarily and then question two of survey #1. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 80. Research Variable 31 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree	
1000	Response	31%			
1100	Relevant Findings	29%		1110 Local User	7
1110-49	Positive Response	18%	18	1120 Mid Level	5
1150-99	Negative Response	11%	11	1130 Senior Level	3
1900	Irrelevant Findings	2%		1140 All Levels	3
1910	Historical	0%	0		
1950	Spurious	1%	1	1180 Unknown	5
1990	Incoherent	1%	1	1190 No Training Required	6.
2000	Non-Response	69%			
2100	Blank on Survey	13%	13		
2200	From Opinion Email	56%	57		

The responses to this variable are consistent with the other training variables. From the distribution of the responses, it seems that the lower in the chain of command, the greater the need. This may or may not correspond to the numbers needed to be trained at these level. The best training strategy based on this survey would be to target down to the lowest levels as possible.

Table 81. Research Variable 32

Variable 32	BEST USE OF TRAINING DOLLARS	The training of a specific audience that would be most beneficial for ABC promotion within the organization.
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**Variable Analysis.** The data used to determine this variable were found in Measurement Questions nine primarily and then question two of survey #1. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 82. Research Variable 32 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree
1000	Response	26%		
1100	Relevant Findings	26%		1110 Below Us 3
1110-49	Positive Response	11%	11	1120 Us 3
1150-99	Negative Response	15%	15	1130 Above Us 4
1900	Irrelevant Findings	0%		1140 Peers 1
1910	Historical	0%	0	
1950	Spurious	0%	0	1150 Elsewhere 4
1990	Incoherent	0%	0	1160 Unknown 7
2000	Non-Response	74%		1180 Nowhere 3
2100	Blank on Survey	16%	16	1190 General Negative Response 1.
2200	From Opinion Email	58%	59	

The responses to the Measurement Question were more negative than positive. Many of the negative responses doubted the value of ABC training in competition with other training needs. Many negative responses were that they just didn't know what would be best. Of the positive responses, the answers were evenly distributed across the entire spectrum of possible answers. The amount of negative answers might be due to the placement of the Measurement Question on the survey and respondent fatigue, but that does not distract from the nature of the answers. For example, one respondent said all

training was in vain until a new cost accounting system is in place. Until the advent of a system, the best use of training dollars was reported as other command training priorities. The underlying assumption in that answer was that training was immediate in nature, and ABC was coming but beyond of the training horizon.

**Investigative Question 3-7 Analysis.** Based on the supporting variables for this Investigative Question, "*What course work aimed at what level given to what audience would best serve the Army in promoting successful implementation of Activity-Based Costing?*" the following has been determined.

Two variables were used to answer this question. First, there is a general perception that training would have to be given to organizations and not individuals. Training was talked about in suites, and that all levels would need it simultaneously. Second, there is a general need for training across the board, but the lower positions in the chain of command had a greater need more than the higher. Course work was categorized into several categories best described as basic, intermediate, and management. Finally, there is the perception that ABC is still beyond the training horizon, and training dollars could be best spent on other immediate needs.

**Clause Analysis: Future Training** From the Investigative Questions supporting this clause, the following has been determined.

Future training will have to serve two audiences. The first audience is those with plans to implement Activity-Based Costing. In these, a suite of training given to units,

not individuals, would be the training most requested. This training was suggested to be from one to three weeks in length. Based on the location in the organization, all would receive general principles and those directly involved would receive more in depth training. Managers would be instructed on how to best use the information gathered.

The second audience was those who did not respond or did not know what they needed. Previous analysis has determined that training is a prerequisite to ABC being implemented. Most training of this type has come from those with undergraduate work in business, some formal training, or information off of the Internet. This represent about 70% of all responses and indicates a large need for training and publication of ABC success stories to generate interest and participation.

**Research Question Three Analysis.** From the analyses of the clauses found in the Research Question “*What is the current US Army training status of ABC principles, how has ABC Training been accomplished, and what future training is still needed?*” the following has been determined.

The answer to this question can be given in three parts. First, regardless of ABC activity within an organization, all but a few reported a general level discomfort with their level of training. Of those with ABC plans, there is at least one person who had received considerable training. Generally, those sites without ABC are completely lacking personnel trained in ABC. It can be assumed that training is a key to promoting ABC at those sites currently not using it. Generally training has been accomplish in accordance with MACOM training strategies. One MACOM relies on consultants almost

entirely, another a mixture of formal training and consultants, and another using DoD consultants, workshops, and informal training. No one set method dominated the responses. Last, when it came to the issue of future training, no one group was pointed out as lacking, but generally the lower in the chain of command, the greater the need. In the argument for best use of training dollars, ABC as a topic suffered when compared to other immediate training needs of the organization. Overall, ABC training was not considered a priority by anyone, and that their discomfort with ABC could be remedied with one or two weeks of training.

### **ANALYSIS OF RESEARCH PROPOSITION THREE:**

Based as the answer to Research Question Three, Research Proposition Three *“ABC practitioners would suggest that the best use of training dollars would be to send their commanders to an ABC overview course”* is rejected based on the following points:

1. Commanders received only a veiled reference in the voiced training needs of units considering Activity-Based Costing. Of the respondents, the category of senior managers (which commanders would be subset) received the lowest indication of perceived need for training.
2. The best use of training dollars received unexpected answers. When couched in terms of best use, Activity-Based Costing suffered when compared to other immediate training needs of the organization. Activity-Based Costing is considered an event that is beyond the training horizon, and training now would not produce the net gain to organizational advancement as in other areas.

3. Activity-Based Costing was considered by the respondents not to be an individual training subject, but something to be accomplished by members of organizations as a group. Training individual commanders would not fit that model.



#### Research Proposition Four

**Background.** Research Proposition Four was based on the below Research Objective. This objective dealt exclusively with policy and which items were critical to respondents.

Table 83. Objective Four

<b>Objective Four:</b>	Discover who is using Activity-Based Costing principles in their management of US Army resources. Provide to CEAC a mailing list of ABC practitioners, and establish a World Wide Web forum to promote Activity-Based Costing.
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The corresponding research proposition supports the intent of the objective even though not comprehensively. Nevertheless, the research proposition is the appropriate measuring device to determine the ABC “who” landscape. The analysis of this proposition gives ample insights to reaching the research Objective. The statement of the proposition is as follows:

**RESEARCH PROPOSITION 4:** Activity-Based Costing principles are much more widespread than expected, with more than fifty grass roots efforts currently under implementation.

Figure 18. Research Proposition Four

**Evaluation.** The analysis of the variables, investigative questions, and research questions supporting this proposition supports rejection of the research proposition. The evaluation is based on the following evidence gleaned from the data.

*What is the depth, breadth, and the current US Army investment in Activity-Based Costing practices?*

Figure 19. Research Question Four

Research Question Four supports Research Proposition Four, Research Objective Four, Management Question Five (Who). The answer to this Research Question has three parts, one for each underlined clause.

*Depth*

Investigative Questions 4-1 and 4-2 are associated with the “depth” clause. Below are listed these investigative questions with supporting variables.

Table 84. Investigative Question 4-1 and Research Variable 33

IQ: 4-1.	<i>What kind of units have been involved with ABC?</i>		
Variable 33	UNIT CATEGORY	Description of type of organizations using ABC.	

**Variable Analysis.** The data used to determine this variable were found in Measurement Questions three, two and four of survey #1 and question two of survey #2. The responses were recorded in Appendix E.

Table 85. Research Variable 33 Ethnographic Analysis

Branch	Description	Rate	Count		
1000	Response	45%			
1100	Relevant Findings	45%			
1110-49	Positive Response	42%	42		
1150-99	Negative Response	3%	3		
1900	Irrelevant Findings	0%			
1910	Historical	0%	0		
1950	Spurious	0%	0		
1990	Incoherent	0%	0		
2000	Non-Response	55%			
2100	Blank on Survey	12%	12		
2200	From Opinion Email	44%	44		

## Sub-branches of the ethnographic tree:

1110	Material / Logistics	13
1120	Agencies	15
1130	Post Support	6
1140	Engineers	2
1150	Combat Units	3
1160	Medical	3

1900 General Negative Response 3.

Almost all of the responses to these questions on the survey were positive. All but three cited their unit as a place where ABC could thrive. The responses did address what type of units could benefit from ABC, but they did not indicate whether they had implemented ABC. The analysis by Major Army Command (MACOM) is as follows. Of the 101 responses, 35 of the responses were from ABC practitioners, where 63 responses were from respondents not using ABC. There were three contractor responses which did not figure in this analysis. Survey responses are located in Appendix E.

The best description of what organizations using ABC, the conclusion would be those directly associated themselves with a subcommand or MACOM headquarters. AMC, FORSCOM, and TRADOC make up the 25 of 35 of the "yes" responses from the surveys. From this, the largest response of "no" answers compared to "yes" came from Department of the Army Agencies and the Medical Command. This analysis is not a criticism of those units, but indicates units which are still unfamiliar with ABC yet interested enough to respond to a survey. One other interesting observation is that most

of the units that have ABC are those with a civilian work corps. Very few line units, those with the majority of their members in uniform, had ABC.

Table 86. Survey Response by MACOM

COMMAND	Total	YES	NO	Contractor
US Army Audit Agency	6	4	2	0
Army Corps of Engineers	4	2	2	0
Army Material Command	25	13	10	2
Finance Command	1	0	1	0
Forces Command	11	5	5	1
Headquarters, DA Agencies	10	1	9	0
Intelligence Command	1	0	1	0
Information Systems Command	4	1	3	0
Military District of Washington	2	0	2	0
Medical Services Command	8	1	7	0
NATO (European Units)	3	1	2	0
National Guard Bureau	2	0	2	0
Pacific Command (8th USA)	3	0	3	0
Space Command	2	0	2	0
Training & Doctrine Command	19	7	12	0
OTHER	0	0	0	0
Total	101	35	63	3

Table 87. Research Variable 34

Variable 34	APPLICATION CATEGORIES	The general services area and specific applications which ABC models or principles are being used or planned.
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**Variable Analysis.** The data used to determine this variable were found in Measurement Questions three, four, five, and six of survey #1 and question 3 of survey #2. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 88. Research Variable 34 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree
1000	Response	37%		1110 BASOPS 8
1100	Relevant Findings	37%		1120 Financial Management 9
1110-49	Positive Response	29%	29	1130 Education 3
1150-99	Negative Response	8%	8	1140 Material and Logistics 6
1900	Irrelevant Findings	0%		1170 General Positive Answers 3
1910	Historical	0%	0	
1950	Spurious	0%	0	
1990	Incoherent	0%	0	1190 General Negative Answers 8.
2000	Non-Response	63%		
2100	Blank on Survey	13%	13	
2200	From Opinion Email	50%	51	

The goal of this variable description was to define applications where ABC has been successfully applied. Many of the financial applications spilled over into the base operations areas such as Defense Financial Accounting Service (DFAS) liaison costs and DoD operated computer services. Depot maintenance was most mentioned under material applications. Reimbursable work was a very common category for ABC application. The negative responses were from those areas where there were no plans to implement ABC. Of note, medical services was missing from all of the main inputs to this variable description. Their absence may be due to the “stove-pipe” software which has been identified as a barrier to ABC implementation.

**Investigative Question 4-1 Analysis:** Based on the supporting variables for this Investigative Question, “*What kind of units have been involved with ABC?*” the following has been determined.

Activity-Based Costing is represented in about a third of the units surveyed. This survey, which was close to being exhaustive in terms of MACOM representatives on every major installation, found about a third of the Commands were involved with Activity-

Based Costing. The units most involved with ABC were those associated directly with a subcommand of or a member of a MACOM headquarters. Those units with heavy civilian population are most likely to be involved with ABC. The largest group of respondents was from AMC, followed by TRADOC and FORSCOM. Headquarters DA, National Guard and Reserves, and the Military District of Washington (MDW), and units located in the Pacific and in Europe were the most likely not to be involved with ABC.

Table 89. Investigative Question 4-2 and Research Variable 35

IQ: 4-2.	<i>Generally, who are and who are not the ABC practitioners?</i>	
Variable 35	GOOD CATEGORIES	The general services area or specific applications where ABC models thrive and are being used effectively.

**Variable Analysis.** The data used to determine this variable were found in Measurement Questions five and six, as well as three, four, ten, and eleven of survey #1. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 90. Research Variable 35 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree	
1000	Response	41%			
1100	Relevant Findings	41%			
1110-49	Positive Response	35%	35	1110 BASOPS	15
1150-99	Negative Response	6%	6	1120 Academic	2
1900	Irrelevant Findings	0%		1130 Communications / Computer	2
1910	Historical	0%	0	1140 Acquisition / Contracting	3
1950	Spurious	0%	0	1150 Medical Services	2
1990	Incoherent	0%	0	1160 Non-Appropriated Funds	1
2000	Non-Response	59%		1170 Reimbursable	5
2100	Blank on Survey	11%	11	1170 General Positive Answers	5
2200	From Opinion Email	49%	49	1190 General Negative Answers	6.

Most positive responses identified BASOPS activities. For actual locations where ABC is practiced effectively, a combination of the response analysis and these answers would have to be accomplished. Of the negative answers, they were more of “I don’t know” than “none.” In summary, since the word thrive was added, which implied “where do you think ABC would most succeed,” there seemed to be but one response from the field: BASOPS.

Table 91. Research Variable 36

Variable 36	POOR CATEGORIES	The general services area or specific applications where ABC flounders and models are not being used effectively.
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**Variable Analysis.** The data used to determine this variable were found in Measurement Questions five and six, as well as three, four, ten, and eleven of survey #1. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 92. Research Variable 36 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree	
1000	Response	27%		1110	Combat Units 6
1100	Relevant Findings	27%		1120	No Automated Data 3
1110-49	Positive Response	14%	14	1130	Foreign Military Sales 1
1150-99	Negative Response	13%	13	1140	Over-regulated 4
1900	Irrelevant Findings	0%			
1910	Historical	0%	0	1150	Where leadership says no 6
1950	Spurious	0%	0	1190	General Negative Answers 7.
1990	Incoherent	0%	0		
2000	Non-Response	73%			
2100	Blank on Survey	22%	22		
2200	From Opinion Email	51%	52		

This variable was the converse of the previous variable. Added to the list of general service areas are two characteristics identifying poor prospects. Those organizations where data collection could not be automated, and where the leadership did not endorse ABC application in the unit mission area were considered the least likely to succeed with ABC implementations. The most common positive answer for identifying a poor category was that of combat units. The best example of an over-regulated area was payroll. This was an area identified by some from the financial management community where managers did not have flexibility to innovate or change operations.

Table 93. Research Variable 37

Variable 37	OVERALL ARMY WIDE ABC USE	Generally, the types of organizations and applications which ABC principles are being adapted.
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**Variable Analysis.** The data used to determine this variable were found in Measurement Questions five and six, as well as three, four, ten, and eleven of survey #1. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 94. Research Variable 37 Ethnographic Analysis

1000		Response	26%		<b>Sub-branches of this tree</b> 1110 Leadership Determined 1 1120 General Areas 13 1140 General Positive 5  1150 ABC is not a good idea 1 1190 General Negative Answers 6.
	1100	Relevant Findings	26%		
	1110-49	Positive Response	19%	19	
	1150-99	Negative Response	7%	7	
	1900	Irrelevant Findings	0%		
	1910	Historical	0%	0	
	1950	Spurious	0%	0	
	1990	Incoherent	0%	0	
	2000	Non-Response	74%		
	2100	Blank on Survey	16%	16	
	2200	From Opinion Email	58%	59	



This variable was taken from respondents who, when given a chance to ponder all the activities within the US Army, they respond by suggesting these as good places for ABC to be implemented. General areas pointed to BASOPS as the premier area for ABC implementation. Second places were medical services and computer services providers. The response rate on this question was much lower than expected, indicating that survey respondents were focused on the task before them rather than Army-wide applications. One answer with an Army-wide focus was another call for DFAS to provide an ABC friendly Federal Accounting System.

**Investigative Question 4-2 Analysis:** Based on the supporting variables for this Investigative Question, “*Generally, who are and who are not the ABC practitioners?*” the following has been determined.

The most concise response to this question is this. Those who are ABC practitioners are those who are service providers, with data, with leadership support, and with some control over how there operations are managed. The most referenced area was BASOPS. The opposite is true in answering who are not ABC practitioners. Non-practitioners are those without automation, in uniform, have a mission focus, and use metrics other than cost. The most recurring answer in this category was combat units. Generally, BASOPS was considered the most suitable area for ABC implementation, followed by medical services and computer services.

**Clause Analysis: Depth.** From the investigative questions supporting this clause, the following has been determined.

From the analyses, ABC resides in the MACOMs and sub-commands in the Army. It was noted that very few ABC applications were found with HQDA and Military District of Washington agencies. Also noted, those units outside of CONUS did not have much ABC activity. With the exception of the Corps of Engineers, those commands not usually associated with a MACOM seemed to have little ABC activity.

#### *Breadth*

Investigative Question 4-3 was associated with the “breadth” clause. Below is the associated investigative question with supporting variables.

Table 95. Investigative Question 4-3 and Research Variable 38

IQ: 4-3.	<i>What was the scope of their ABC effort?</i>	
Variable 38	LEVEL OF ABC INVOLVEMENT	The extent of ABC involvement and enthusiasm of the respondent.

**Variable Analysis.** The data used to determine this variable were found in Measurement Questions 19, 20, and 1 of survey #1 and question 3 of survey #2. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 96. Research Variable 38 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree	
1000	Response	96%		1110 A: Very Involved	23
1100	Relevant Findings	96%		1120 B: Moderately Involved	24
1110-49	Positive Response	59%	60	1130 C: Interested	13
1150-99	Negative Response	37%	37		
1900	Irrelevant Findings	0%		1150 D: Marginally Interested	18
1910	Historical	0%	0	1160 F: Not Involved	19.
1950	Spurious	0%	0		
1990	Incoherent	0%	0		
2000	Non-Response	4%			
2100	Blank on Survey	0%	0		
2200	From Opinion Email	4%	4		

This was a subjective analysis of the responses as to the involvement survey and electronic mail respondents had with ABC. Based on the categorized responses, grades were assessed based on: 1) depth of working knowledge of ABC, 2) indicators of participation, and 3) enthusiasm of the author. This evaluation was independent of whether or not the respondent was an advocate or antagonist to ABC. About 60% of the respondents were involved in ABC in some fashion.

Table 97. Research Variable 39

Variable 39	PERCENT OF BUDGET IN ABC	The breadth of ABC involvement in terms of budget
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**Variable Analysis.** The data used to determine this variable were found in Measurement Question five of survey #1. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 98. Research Variable 39 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree
1000	Response	100%		1110 None 65
1100	Relevant Findings	100%		1120 Between 1% - 49% 23
1110-49	Positive Response	68%	69	1130 50% and above 9
1150-99	Negative Response	32%	32	
1900	Irrelevant Findings	0%		1190 Unknown 4.
1910	Historical	0%	0	
1950	Spurious	0%	0	
1990	Incoherent	0%	0	
2000	Non-Response	0%		
2100	Blank on Survey	0%	0	
2200	From Opinion Email	0%	0	

This variable was a subjective analysis of the responses as to the involvement questions. Unless there was evidence of ABC, they were recorded as not having Activity-Based Costing at their sites. The measurement question in the survey was designed to be an acid-test question for the previous responses. Based on the responses, the split between using ABC and not using ABC is 35 “yes” and 63 “no.” The split in this question is almost identical, 32 “yes” and 69 “no.” Overall, it can be generally deduced that 10% of the survey participants had over 50% of their budget under ABC principles, and 20% had some, but less than 50%. Seventy percent of the respondents had no part of their budget under ABC cost accounting principles.

Table 99. Research Variable 40

Variable 40	PERCENT OF COMMAND IN ABC	The breadth of ABC involvement in terms of command services
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**Variable Analysis.** The data used to determine this variable were found in Measurement Questions six of survey #1. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 100. Research Variable 40 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree
1000	Response	100%		1110 None 62
1100	Relevant Findings	100%		1120 Between 1% - 49% 24
1110-49	Positive Response	70%	71	1130 50% and above 6
1150-99	Negative Response	30%	30	
1900	Irrelevant Findings	0%		1190 Unknown 9.
1910	Historical	0%	0	
1950	Spurious	0%	0	
1990	Incoherent	0%	0	
2000	Non-Response	0%		
2100	Blank on Survey	0%	0	
2200	From Opinion Email	0%	0	

This variable was a subjective analysis of each of the responses as to the involvement questions. Unless there was evidence of ABC, they were recorded as not having ABC. The questions only changed slightly, with most of the migration to the unknown category based on people unwilling to answer a command wide question with any certainty. Instead of quantitative answers, most of the answers took the form of qualitative judgments of “lots” or “some.” In checking the correlation with the previous answer, the validity of these responses was questionable. It appeared that it was easily confused with the prior question on the survey. This variable did little more than confirm the responses from the previous variable and textual responses.

This measurement question was its demise of many of the survey attempts. This was the last question answered by almost all of the “B” respondents, leading to the conclusion that the survey question crossed the fine line of tolerance in asking for their opinions.

**Investigative Question 4-3 Analysis.** Based on the supporting variables for this Investigative Question, “*What was the scope of their ABC effort ?*” the following has been determined.

Scope of effort was determined on the basis of three perspectives, level of personal involvement, percent of budget under ABC principles, and percent of command services. What can be determined is that there are many ABC champions, potential ABC champions, and even some interested in what the ABC champions are doing resident in the field. Of actual ABC being practiced, it can be gleaned from the survey that 10% are doing ABC, 20% are doing some actual ABC or applying ABC principles, and 70% are not doing any ABC.

Getting into the survey responses, it seemed that the Corps of Engineers were in the lead on scope of ABC practices. They have a “stove-pipe” cost accounting system which provided the activity data needed for management reports and decision making. With this notable exception, the evaluation of the scope of ABC effort within the field was rated as quite low.

**Clause Analysis: Breadth.** From the investigative questions supporting this clause, the following has been determined.

From the analyses above, there appeared to be little breadth to ABC efforts in the field. With request for quantitative responses in terms of percentages, the quality of the answers dropped dramatically, another indicator of little breadth. Responses such as answers such as “too early to tell” may be evidence that breadth is growing.

### *Investment*

Investigative Questions 4-4, 4-5, and 4-3 are associated with the “breadth” clause.

Below is the associated investigative question with their supporting variables.

Table 101. Investigative Question 4-4 and Research Variable 41

IQ: 4-4.	<i>How much is it costing the organization to implement ABC?</i>		
Variable 41	ABC COST	In estimated dollars, the total of all expended and future ABC implementation costs for the organization of the respondent.	

**Variable Analysis.** The data used to determine this variable were found in Measurement Question 17 of survey #2 and in the opinionated electronic mail received. The response rate was low because of this variable’s dependence on the second survey and the sensitive nature of the question. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 102. Research Variable 41 Ethnographic Analysis

Branch	Description	Rate	Count		
1000	Response	15%		Sub-branches of this tree	
1100	Relevant Findings	15%			
1110-49	Positive Response	8%	8		
1150-99	Negative Response	7%	7		
1900	Irrelevant Findings	0%		1130	General Negative Response 4
1910	Historical	0%	0	1190	None 3
1950	Spurious	0%	0	2120	
2000	Non-Response	85%			
2100	Blank on Survey	27%	27		
2120	Too Sensitive	4%	4		
2200	From Opinion Email	54%	55		

There was little probability that anybody would offer to answer this question with dollar figures, and the results occurred as predicted. What was not expected was that

most were willing to comment on their approach to resourcing ABC within their commands. It was generally split on the options, some taking a minimal cost route, and others wanting to limit their risk of failure by getting the best value in consultants. The issue of cost generated significant attention in many of those opposed to investing money in ABC. Mention of taxpayer tests and “snake oil salesmen” frequently occurred in the negative answers.

Some dollar figures were given, but all by second hand sources. Since none of the figures was provided by those with access to the actual expenditure records, it would be counter-productive to publish them in the analysis or findings.

**Investigative Question 4-4 Analysis.** Based on the supporting variables for this Investigative Question, “*How much is it costing the organization to implement ABC ?*” the following has been determined.

The surveys did not provide much information to address the question. About half the responses indicated minimal investment, while the other half indicated a desire to limit risk and hire well known consultants. Though some were willing to say what others had spent, nobody was willing to comment on what they had spent. Eighty-five percent of the respondents by-passed this area completely.

Table 103. Investigative Question 4-5 and Research Variable 42

IQ: 4-5.	<i>Is the organization using contractor support, if so, how involved is the contractor?</i>	
Variable 42	CONTRACT SUPPORT	Names of any support contractors or consultants involved with organization



**Variable Analysis.** The data used to determine this variable were found in Measurement Questions 16, 17, and 18 of survey #2 and in the opinionated electronic mail received. The response rate is low because of this variables dependence on the second survey and the sensitive nature of the question. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 104. Research Variable 42 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree
1000	Response	21%		1110 Commercial Consultants 7
1100	Relevant Findings	19%		1120 DoD Consultants 7
1110-49	Positive Response	14%	14	
1150-99	Negative Response	5%	5	
1900	Irrelevant Findings	2%		1150 General Negative Response 5
1910	Historical	0%	0	1950 Biased: Contractor Response 2
1950	Spurious	2%	2	
2000	Non-Response	79%		2120 None of our Business 2
2100	Blank on Survey	27%	27	(too sensitive to answer).
2120	Too Sensitive	2%	2	
2200	From Opinion Email	50%	51	

Of those who had used consultants, there was an even split in use between commercial providers and using consultants within the Department of Defense. Examples of the later are the US Army Audit Agency, and the MEA team in the Army Material Command (AMC). RAND Corporation (a quasi-government entity) had conducted a number of studies, as well as the Air Force Institute of Technology. Some concern was raised about consultants brought in by higher headquarters to assist.

Table 105. Research Variable 43

Variable 43	CONTRACTOR COMMITMENT	Resource commitment of contractor to the organization.
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**Variable Analysis.** The data used to determine this variable were found in Measurement Questions 18 and 16 of survey #2, and in the opinionated electronic mail received. The response rate is low because of this variables dependence on the second survey and the sensitive nature of the question. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 106. Research Variable 43 Ethnographic Analysis

Branch	Description	Rate	Count
1000	Response	19%	
1100	Relevant Findings	9%	
1110-49	Positive Response	4%	4
1150-99	Negative Response	5%	5
1900	Irrelevant Findings	10%	
1910	Historical	1%	1
1950	Spurious	9%	9
2000	Non-Response	81%	
2100	Blank on Survey	29%	29
2120	Too Sensitive	1%	1
2200	From Opinion Email	51%	52

There were few responses, but of the responses about half commented on how self-serving the commercial consultants were, and the remainder said they were happy with them. There was no reference to DoD consultants in the responses. Many do not view other DoD agencies as consultants but rather as interagency or internal support.

Two sites noted that the information provided by consultants now is available free on the Internet. There is “free” software available for those who want to experiment with

ABC. Free was defined as either share-ware on the net or Army-licensed software. There was anticipation that Internet use would grow.

**Investigative Question 4-5 Analysis.** Based on the supporting variables for this Investigative Question, *“Is the organization using contractor support, if so, how involved is the contractor?”* the following has been determined.

Only 14 of the sites referenced the use of consultants. Of these consultants, half were commercial consultants and the other half were DoD support agencies. Of the commercial consultants, half were praised and the other half severely criticized. There were no complaints about the DoD support agency consultants. The Internet has been noted as a future source of the type of information consultants often provide.

Table 107. Investigative Question 4-6 and Research Variable 44

IQ: 4-6.	<i>What within the government resources are committed to Activity-Based Costing?</i>	
Variable 44	GOVERNMENT RESOURCES	Government resources used in the implementation of ABC

**Variable Analysis.** The data used to determine this variable were found in Measurement Question 17 of survey #2, and in the opinionated electronic mail received. The response rate was low because of this variable’s dependence on the second survey and the sensitive nature of the question. The responses were recorded in Appendix E. The following ethnographic analysis tree shows the following response rates:

Table 108. Research Variable 44 Ethnographic Analysis

Branch	Description	Rate	Count	Sub-branches of this tree
1000	Response	25%		1110 100% In-House Effort 18
1100	Relevant Findings	24%		1120 Resource Answers 2
1110-49	Positive Response	20%	20	
1150-99	Negative Response	4%	4	
1900	Irrelevant Findings	1%		1150 Problems 2
1910	Historical	0%	0	1160 Contractor Preferred 2
1950	Spurious	1%	1	
2000	Non-Response	75%		2120 None of our Business 1
2100	Blank on Survey	26%	26	(too sensitive to answer).
2120	Too Sensitive	1%	1	
2200	From Opinion Email	49%	49	

There were few responses, but of those the overwhelming amount endorsed the in-house solutions over the consultant route. Common reasons were ownership of the results and the need to know how to customize the systems. It was perceived that ABC does not have to be a big project, and that given a reasonably powerful personal computer (PC), ABC cost accounting could be accomplished at their location.

This measurement question linked to this variable was perceived to be a "what percentage" question vice a "who" question. This is probably due to the position within the survey and the fact that "who" had been answered previously in the surveys. To reiterate, government resources most often used were the US Army Audit Agency, post Internal Review staffs, contact teams, such as MEA in AMC, and Internet resources.

**Investigative Question 4-6 Analysis:** Based on the supporting variables for this Investigative Question, "*What within the government resources are committed to Activity-Based Costing?*" the following has been determined.

Many offices are committed to ABC efforts on the side. The overwhelming responses to this question were offices home-growing their systems voluntarily. The availability of government agencies was known and used. Government resources most often used were the US Army Audit Agency, post Internal Review staffs, contact teams, such as Management Engineering Activity (MEA) of AMC, and Internet resources.

**Clause Analysis: Investment.** From the investigative questions supporting this clause, the following has been determined.

Investments in Activity-Based Costing were sensitive issues among survey respondents. Eighty-five percent of the respondents avoided this issues. Of the 15% responding, none was willing to offer what had been spent on their projects to date. Two routes commonly were taken. First, the consultant route, with the goal of reducing risk of failure, and second, the in-house route with the goal of minimizing cost and increasing effectiveness. Consultants were both praised and condemned. Overall, there seems to be three camps on this issue of investment. (Five percent have used higher priced commercial consultants exclusively, five percent use DoD consultants available for moderate cost, and five percent have been minimizing investments by building their own systems.)

**Research Question Four Analysis.** From the analyses of the clauses found in the Research Question, “*What is the depth, breadth, and the current US Army investment in Activity-Based Costing practices?*” the following has been determined.

This Research Question can be answered in three parts. The depth of ABC practices within the US Army is almost exclusively limited to MACOM and sub-command

entities. Within DA and outlying areas, there is little evidence, with the exception of the Corps of Engineers, of any Activity-Based Costing. At these sites, the breadth of efforts are quite narrow and most still in their development stages. Only two sites could be classified as mature. The surveys could not support measuring the investment by the US Army in monetary terms. In terms of effort, which is correlated to cost, there was an even split in the strategies used to implement ABC. One third went with commercial consultants, one third with DoD consultants, and one third were building their own models. In summary, the depth of ABC is limited, the breadth is narrow, and the investment has run the gambit.

#### **ANALYSIS OF RESEARCH PROPOSITION FOUR:**

Based as the answer to Research Question Four, Research Proposition Four, *"Activity-Based Costing principles are much more widespread than expected, with more than fifty grass roots efforts currently under implementation."* is rejected based on the following points:

1. The analysis does not support the claim of widespread use of ABC within the US Army. Activity-Based Costing principles are housed almost exclusively in the MACOMs and their sub-commands. There was little evidence of widespread use in areas of medical services, guard and reserve units, intelligence units, information systems, space programs, or combat units.

2. As determined by three different variable investigations, the number of sites indicating the use of ABC principles did not exceed 35. This survey was only a few sites

short of being an exhaustive canvassing of every MACOM on every major post. Of all efforts, the analysis found that only one third of the implementation efforts was “grass roots” in nature. This research cannot support an assumption that the number of actual “grass roots” sites using ABC principles exceeds twenty, much less fifty.

### Summary

The analyses performed in Chapter IV gathered the raw data collected in the surveys, organized it into variable data sets, defined the variables, answered the investigative questions, produced the analyses for each supporting clause, answered each of the four research questions, and then accepted or rejected the research propositions. In Chapter V, the answers to the research propositions and research questions are incorporated into providing the best response to the research objectives, management questions, and the general management problem.

## V. Conclusions and Recommendations

### Overview

This chapter presents the conclusions derived from the research findings. The analysis of Chapter IV finished by evaluating the validity of each of the research propositions. This chapter builds on those analyses according to the previously defined research flow and organization (Figure 20, next page, which is identical to Chapter II, Figure 7). To facilitate logical flow within this chapter, supporting research objectives and management questions are answered in order of accomplishment to maintain logical flow. The research objective analysis order is four, then one, two and three.

The organization of this chapter is as follows: 1) Summary of the Research Propositions, 2) Summary of the Research Objectives, 3) Summary of the Management Questions and information priorities to fulfill that data requirements of Part II of the US Army Cost and Economic Analysis Center (CEAC) Activity-Based Costing (ABC) Voluntary Support Plan, 4) conclusions drawn from the findings, and 5) recommendations and suggestions for further study.

The answers to the research questions support the corresponding research propositions. These analyses are found in Chapter IV, pages 102, 127, 148, and 171 for Research Questions One through Four, respectfully. The detailed justification for acceptance or rejection of the research propositions immediately follows each research question analysis. The summary of the research propositions immediately follows Figure 20, Research Flow and Organization.



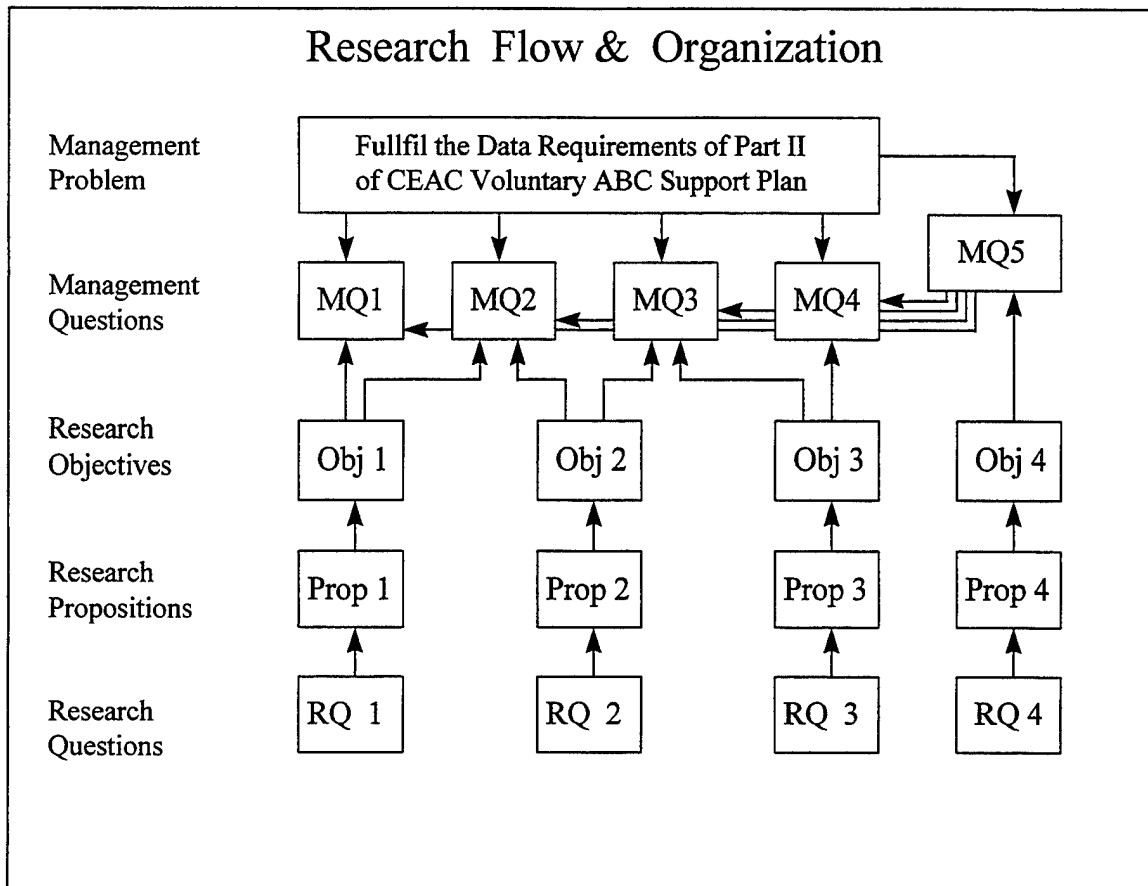


Figure 20. Research Flow and Organization

### Summary of Research Propositions

The validity of each of research propositions is determined by the answers to the corresponding research questions. Specific reasons for acceptance or rejection are found in the corresponding pages of Chapter IV. The summarized results of these findings are in the following table.

Table 109. Summary of Research Propositions

Proposition	Evaluation	Description
Proposition 1	REJECTED	Those implementing ABC principles would rather not receive guidance and assistance from Headquarters, Department of the Army.
Proposition 2	NOT REJECTED with qualification	Activity-Based Costing was implemented as a long term cost management response to declining budgets. Reporting information received from Activity Cost reports has helped management understand their business area better, but has not lead to internally generated budget reducing measures.
Proposition 3	REJECTED	ABC practitioners would suggest that the best use of training dollars would be to send their commanders to an ABC overview course.
Proposition 4	REJECTED	Activity-Based Costing principles are much more widespread than expected, with more than fifty grass roots efforts currently under implementation.

#### Summary of Research Objectives

The following sections discuss the research objectives as stated in Chapter II. The order of analysis is based on order of accomplishment. Research Objective Four precedes the others because it had to be met prior to the others could be attempted. The table on the following page restates the research objectives.

**Objective Four: Who.** Research Objective Four required two specific data deliveries. The first is a detailed listing electronic mailing list and second is the establishment of a World Wide Web (WWW) forum for the promotion of Activity-Based Costing.

Table 110. Research Objectives

<b>Objective One:</b>	Discover the major policy issues happening or promoting the implementation of Activity-Based Costing within the US Army.
<b>Objective Two:</b>	Explore the purpose for which Activity-Based Costing is being implemented in the US Army, and how the information gained from Activity-Based Costing reporting is or will be used by management
<b>Objective Three:</b>	What is the general status of Activity-Based Costing knowledge in the US Army resource management environment, and discover the extent of training needs to economically promote Activity-Based Costing
<b>Objective Four</b>	Discover who is using Activity-Based Costing principles in their management of US Army resources. Provide to CEAC a mailing list of ABC practitioners, and establish a World Wide Web (WWW) forum to promote Activity-Based Costing.

This research accomplished an exhaustive effort to contact at least respondent at each Army post, camp, and station, combined with a Major Army Command (MACOM) tenant at that post. Appendix F details the summary information presented below.

Table 111. ABC Points of Contact

<b>Metric</b>	<b>Research Finding</b>
Number of Posts Identified	58
Number of Camps Identified	13
Number of Stations Identified	44
Number of DoD Sites with Army Mission	1
Total Number of Sites: Post / Camp / Stations	116
Total Number of Sites and MACOM Combinations	178
Number of Sites without a POC Identified	31 (Listed under "other" in Apx F)
Number of POCs Identified	294
Number of POCs Selected for Surveys	173
Number of Failed Receipts	23 (plus three unsolicited)
Number of Survey Responses	101 (response rate of 66.4%)
Number requesting to be put on ABC e-mail List	24 + 16 existing names

Of the thirty-one sites without points of contacts, eleven were under Base Realignment and Closure (BRAC) actions, two were historical posts, two were recreation

centers, and one was a training area. The points of contact list was six posts, seven camps, and three stations short of obtaining a point of contact at every active camp, post, and station. Of those responding to surveys, forty requested to be placed on an Activity-Based Costing mailing list. The point of contact and mailing list is a limited distribution document delivered to the research sponsor.

The second requirement was to establish a Home Page on the World Wide Web. The Home Page was constructed and scheduled to be installed on the ASA(FM&C) host computer on 8 June 1996. Due to the arrival of a new web host at CEAC, plans were made to install the Home Page there. Problems in bringing the system operational caused the delay of the installation. The Home Page, Appendix G, is scheduled for installation in October 1996.

**Objective One: Policy Issues.** Objective One directed this research to discover the major policy issues affecting or promoting the implementation of Activity-Based Costing within the US Army. From the results of the analysis of Research Question One, the following conclusions can be drawn:

1. Guidance has been most helpful when it has been known. There seems to be a great lack of awareness of current policies. Over half the respondents laid the blame for policy voids on DA level policy makers.
2. Policies which instill accounting disciplines were most requested.
3. None of the 101 respondents argued that current policy was sufficient.
4. Changing from traditional to ABC methods caused problems for those who resisted the paradigm shift. Examples of severe problems when higher headquarters

enforced restrictive policies and self-centered "HQ Logic." Some self-defeating policies for ABC were written based on the traditional accounting mentality.

5. Specific areas of concern focused on conflicting policy, such as AR 5-9 (off post support) being in conflict with ABC initiatives.

Other issues that impacted policy included leadership involvement, fertile policy environments, and the conditions that promoted effective, efficient, and flourishing use of Activity-Based Costing principles were described in Chapter IV.

**Objective Two - Motivation and Methods.** Objective Two directed this research to explore the purpose for which Activity-Based Costing is being implemented in the US Army, and how the information gained from Activity-Based Costing reporting is or will be used by management.

The first part of this objective was to identify the purposes and motivations for which ABC was implemented. The responses from the surveys indicated that the motivations behind Activity-Based Costing were primarily due to command directives. These directives were based on expected benefits from performance measurement, process improvement, and product costing. Activity-Based Costing has not only been seen as a means to improvement, but also as an end in itself. ABC has been compared to Total Quality Management (TQM), and management must assess whether the benefits of implementing ABC outweigh the costs incurred.

Implementation is the combination of an approach and a software solution. The two main approaches taken were bottom-up and top-down. IDEF and story boarding were sometimes used for both. IDEF was preferred by consultants and was seen mostly

in bottom-up systems design. AMC used the story board approach and preferred to build custom systems using existing PC software. Of the software solutions, DoD owned software and Excel spreadsheets were the most popular. Few respondents provided information regarding difficulties experienced while implementing ABC. It was concluded that the primary reason for the lack of response was the general immaturity of any of the ABC systems in place today. Of those reporting ABC in use, only 4% considered their systems mature.

Other issues that impact motivation and methodology, such as leadership involvement, definition of successful systems, and reported data were further described in Chapter IV.

**Objective Three - Training.** Objective Three directed this research to explore the general status of Activity-Based Costing knowledge in the US Army resource management environment, and to discover the extent of training needs to economically promote Activity-Based Costing.

The overall training status was surprisingly high for a voluntary program, but was concluded that knowledge of ABC resided almost entirely in the sites pursuing implementation. Of those sites without ABC plans, the level of training was almost non-existent. The general level of discomfort reported was also determined to be something that could be remedied rather quickly. Training was considered to be organizational, and not individual in nature. Those reporting success had a day long course for their entire organizations in basic principles, those directly responsible for ABC received a longer course, and management received a short specialized course. Future training

requirements will have to serve two audiences, those who have plans to implement and those who do not. At the present time, those sites which do not have plans generally do not possess an ABC champion. The best way indicated to groom ABC champions was to have published success stories where commanders and analysts can evaluate their potential for success based on other's actions.

Both commercial and government trainers have been employed, with each MACOM taking on a unique training strategy. AMC preferred government provided trainers, TRADOC preferred formal education from both local colleges and consultants, and FORSCOM was heavily involved with consultants. Training in the medical community could not be determined to be orchestrated. Consultants have not been primary trainers. Informal training, such as workshops and on-the-job peer training has been noted as the primary means to train the users. Formal training had been accomplished by both government and commercial providers. Overall, there does not seem to be one source of training for Activity-Based Costing. As training is needed, supervisors with the advice of their MACOM, have independently secured the training needed.

Other issues that impact training, such as software and consultant usage, were further described in Chapter IV.

#### Summary of Management Questions

The following table lists the specific questions management raised in its pursuit of the data requirements of the CEAC Voluntary ABC Support Plan. Management Question

Five was answered in Research Objective Four, which supported the other Management Questions. Management Questions One through Four were answered through the combination of answers from the Research Objectives One through Three (Figure 1).

Table 112. Management Questions

MQ1: What are the developing ABC issues within the US Army ?
MQ2: What are the existing methodologies used in the field ?
MQ3: What software is currently in use or planned to implement ABC ?
MQ4: What are the US Army's ABC training needs ?
MQ5: Who is using ABC and how do we communicate with them ?

**Management Question One.**

MQ1: What are the developing ABC issues within the US Army ?
--

Figure 21. Management Question One

The most prevalent ABC issue developed within the Army was how to justify the continuation of ABC beyond to the tenure of supportive commanders. There were several cases in the medical community and the training community where command priorities changed and the long term benefits of Activity-Based Costing never materialized. One MACOM sacrificed their ABC initiatives along with several other good programs in order to live within budget constraints.



The use of consultants had both support and opposition. The policies concerning what approach had been handled by headquarters MACOM resource managers.

Generally, respondents in subordinate commands did not comment negatively about the approach their MACOM resource managers suggested. Success with consultants was reported as a function of leadership rather than approach.

The third area of concern was the availability of an ABC friendly cost accounting system. Many users have had to commit more resources than desired in order to manually update their ABC models. For success to become commonplace, automated entries into the cost accounting systems must be achieved. ABC advocates look to DA agencies (CEAC and USAAA) to provide this capability within the next few years.

#### **Management Question Two.**

MQ2: What are the existing methodologies used in the field ?

Figure 22. Management Question Two

Three methods were used to implement ABC in the field. The most common method was using consultants. Consultants were available from both DoD agencies, MACOM staffs, as well as commercial vendors. These consultants usually delivered application software to augment software already resident at sites. The second method was stovepipe systems. The Corps of Engineers reported great success with their custom system. Also, in this category were those constructed by local analysts for internal use. The third method was reduced risk of failure by paying for a contractor to integrate ABC into the organization, such as those employed by FORSCOM. Both top-down (for

example story-boarding) and bottom-up (for example IDEF modeling) were used successfully. Contractor provided solutions tended to prefer the bottom-up approach.

The question of existing methodologies extended to the operation of maturing systems. Of those responding to these questions, there were three types of software responses. First was the mainframe interfaces to collect and then sort and extract detail to support ABC analysis. The second was commercial software. This solution had the most complaints. The last method was to build systems on local PCs.

Very little was offered by survey respondents in the way of offering solutions to difficult areas, such as how to allocate the costs of multiple layers of management. This would be an area of follow up investigation once systems start to mature.

#### **Management Question Three.**

MQ3: What software is currently in use or planned to implement ABC ?
--

Figure 23. Management Question Three

In the over one hundred responses, seven commercial software packages and solutions were mentioned. Other than the software listed in Table 113, many users were active in building their own PC based systems using PC resident databases (Microsoft Access) and spread sheets. Microsoft Excel was the dominate favorite, with only one site reporting the use of another vendor's product (Lotus 123).

Table 113. ABC Software

Name	Platform	User
ABBCM, Activity Based Budgeting, Costing and Management	Mainframe	DFAS
TurboBPR (Business Process Re-Engineering)	PC (not given)	DoD
SIFS	Mainframe (not given)	not given
MEPRS (standard medical costing)	Mainframe (not given)	DoD
VISIO	Mainframe Interface	USAFISA
ABC +	PC	not given
Easy ABC	PC	Army

#### Management Question Four.

MQ4: What are the US Army's ABC training needs ?

Figure 24. Management Question Four

Future training will have to serve two audiences. The first audience is those with plans to implement Activity-Based Costing. In these, a suite of training given to units, not individuals, would be the training most requested. This training was suggested to be from one to three weeks in length. Based on the location in the organization, all would receive general principles and those directly involved would receive more in depth training. Managers would be instructed on how to best use the information gathered.

The second audience included those who did not respond or did not know what they needed. Previous analysis has determined that training is a prerequisite to ABC being implemented. Most training of this type has come from those with undergraduate work in business, some formal training, or information off of the Internet. This category

of respondent represented about 70% of all responses, and indicated a large need for training and publication of ABC success stories to generate interest and participation.

#### **Management Question Five.**

MQ5: Who is using ABC and how do we communicate with them ?

Figure 25. Management Question Five

The home of Activity-Based Costing in the US Army resides in the Major Army Commands and their sub-commands. There is very little ABC activity within the belt-way or outside the continental United States. The question of how to communicate with them was proven in the high success rate of responses in this research. It was discovered that most of the ABC practitioners are not soldiers, but Department of the Army civilians. Electronic mail is practically universal in the resource management community, as is most effective in distribution of information and soliciting opinion.

#### Conclusions

There are several significant conclusions that can be drawn from this research. Of these conclusions, management can take action to guide Activity-Based Costing implementation and to maximize the benefits across the Army.

1. ABC is attracting much interest in the resource management community and commanders. This conclusion is based on the demonstrated in the high response rates to points of contacts around the world. All the answers received were very professional and showed genuine interest. The motivation for interest was generated at the MACOM and subcommand level. Some respondents credited their command's interest to the National

Performance Review objectives. No respondent credited DoD or DA actions as a motivation for ABC implementation.

2. The field is starved for information concerning ABC. A perceived void in policy was stated as the first informational needed to be satisfied. MACOM points of contact communicated that even bad policy would be better than no policy. Second was a need to communicate success stories to those who are waiting to see if ABC can help satisfy their management needs.

3. Activity-Based Costing is most prevalent in MACOM and sub-command elements. Each MACOM has developed its own preferred way of implementing ABC with general success. DA agencies are perceived as facilitators, and would most likely to meet resistance in trying to force any DA approved approach to implementation.

4. Training is not a major issue to those in the field. The general consensus of the respondents stated that on-the-job training (OJT) was successful when local champions guided the implementation of ABC at their sites. The most common response stated ABC training would be premature for commanders and users, and that the best use of training dollars was on more immediate needs within the commands. Training was not perceived as beneficial as long as there was no ABC friendly cost accounting system available.

5. Base operations (BASOPS) and support functions seem to be the most attractive area for ABC implementation. Other strong contenders are the medical services community and training. Combat units, and activities where cost is not a performance metric (like FMS), were considered least appropriate. Of the responses, nobody claimed that ABC was a silver bullet, but praised its benefits and warned of its limitations.

### Recommendations for Further Study

The following areas of research would benefit the US Army in promoting the implementation of Activity-Based Costing .

1. Conducting and publishing case studies of those sites which succeeded and failed in implementing Activity-Based Costing would greatly increase the confidence of those deciding to implement.

2. Activity-Based Costing is generating interest in other services as well as in DoD agencies. As DoD develops policy, surveys similar to this one conducted for the Army should be accomplished for the Air Force, Marines, or Navy. Using the same methodology would provide consistency for DoD policy makers.

3. Research is needed to determine the exact needs of field units in designing a cost accounting system. There are high expectations in the field concerning this new cost accounting system, but few said they had any inputs into its design.

4. One of the weaknesses of this survey was the bias created due to the limited functional users responses and overwhelming response from the resource management community. Follow up studies using the same methodology and research questions could focus on the functional user community.

### Summary

The purpose of this research was to provide the US Army Cost and Economic Analysis Center (CEAC) with information about Activity-Based Costing (ABC) practices within the US Army. This exploratory research first identified ABC practitioner points of

contacts and then extracted information necessary for CEAC to form Army policy. The secondary product from this research was the establishment of a communications network by which draft policy can be distributed for comment and ABC issues can be discussed.

In the accomplishment of the research requirement, response from the surveys indicated Activity-Based Costing was a major issue within the resource management community. There is much interest in achieving the expected benefits, as demonstrated by many local champions taking actions to implement systems. Only a very few mature systems currently were found. Also, users are requesting policy and assistance to flow down from DA agencies and MACOM staffs to assist them in their efforts. The greatest catalyst to successful implementation of Activity-Based Costing has been identified as support from local management and senior leaders. Leaders must be convinced of the value of ABC for success to become common place.

As evidence of the interest in Activity-Based Costing, this thesis has been requested to be placed on the Home Page for access by the resource management community. Prior to publication, the analysis and findings had been briefed at DA and at three MACOM staff elements. Forty requests for additional information concerning this document have been registered. The interest in this document was generally for one of three reasons: (1) participation in the creation of ABC policy, (2) understanding the benefits of ABC by study of success stories, and (3) learning how other units are implementing Activity-Based Costing.

Finally, the importance of this thesis is based on the accomplishment of the management objectives. CEAC can now act upon its ABC voluntary support plan

knowing the environment which ABC will be implemented. Secondly, lines of communication between policy makers and users have been established which will provide channels from which discussion and refinement of policies can be accomplished. Third, this research provides a template for other services to approach surveys of their Activity-Based Costing initiatives. Overall, this research provided previously unknown and valuable information for resource managers at all levels concerning the extent of ABC implementation within the Army.



## Appendix A - CEAC Briefing Charts

### **Scope of Involvement**

- Provide ABC Policy to the Total Army
- Develop ABC Guidance in conjunction with other initiatives, Standard Service Costing, Service Based Costing, and DFAS Cost Accounting Systems
- Develop ABC guidance through a "consensus" building team
- Develop ABC in a three step process
- Act as a central clearing house for ABC information for the Army

Slide 3, 20 Feb 96

### **Managerial Costing For Base Operations**

- **Standard Service Costing**  
A set of standards which outlines cost and performance goals that should be accomplished in non-financial terms (minutes, square feet)  
Performance oriented: Service costs, quantity output, measurement of quality
- **Standard Service Costing**  
Measures the costs incurred to provide a service and the output produced for each service  
Quick, inexpensive, relevant costs, limited ABC techniques
- **Activity-Based Costing**  
A Method of measuring the consumption of resources by activities and the consumption of activities by a service  
Multistage cost-assignment system, traces costs based on cause & effect, removes distortions

Slide 4, 20 Feb 96

## **Plan Objectives**

- Voluntary ABC implementation supported by controlling methodology and training.
- Achieve Army wide ABC beginning with unique application followed by installation wide efforts
- Develop ABC leadership and implementation training
- Develop and coordinate all guidance through a select Army wide steering committee.

Slide 10, 20 Feb 96

## **Proposed Three Point Plan**

- ☒ • Building the Frame Work
  - Develop ABC policies and guidance
  - Sustain ABC and related initiatives

Slide 11, 20 Feb 96

## **Proposed Plan: Part III**

### **Sustain ABC and Related Initiatives**

- Approve and Revise Methodologies as necessary
- Continuous Research
  - Track Best Practices
  - Improve Existing Methodologies
- Conduct Training
  - Commander's Courses
  - ABC Related Courses, Seminars, Conferences
- Continue to Update Total Communication
  - Electronic Mail
  - World Wide Web and Home Page

Slide 14, 20 Feb 96

## Appendix B - Message Traffic

### ASA(FM&C) Message

The following message, dated 17 August 1995, authorized the US Army Cost and Economic Analysis Center to lead on Activity-Based Costing policy and guidance issues.

RAAUZYUW RUEADWD4457 2402031-UUUU--RUEAHUA.

ZNR UUUUU

R 171100Z AUG 95

FM DA WASHINGTON DC//SAFM-ZA//

TO AIG 7406

AIG 7446

AIG 9152

INFO RUEAEAC/DIRUSACEAC WASHINGTON DC

BT

UNCLAS

SUBJECT: ACTIVITY-BASED COSTING (ABC) POLICY & GUIDANCE

A. REFERENCE AR 11-18, THE COST AND ECONOMIC ANALYSIS PROGRAM, DTD 31 JANUARY 1995.

B. REFERENCE ASA(FM&C) MEMORANDUM DATED 19 MAY 1995, SUBJECT: ARMY REIMBURSABLE POLICY.

1. I HAVE DIRECTED THE US ARMY COST & ECONOMIC ANALYSIS CENTER (USACEAC), A FIELD OPERATING AGENCY OF OASA(FM&C), TO DEVELOP ARMY-WIDE ABC GUIDANCE TO SUPPORT THE MANY INSTALLATION INITIATIVES CURRENTLY UNDERWAY. USACEAC WILL DEVELOP POLICY AND GUIDANCE, COORDINATE DEVELOPMENT OF ABC MODELS, AND CONSOLIDATE INFORMATION ON ABC INITIATIVES. MY DEPUTY ASA FOR COST ANALYSIS WILL BE THE REVIEWING AND PUBLISHING AUTHORITY FOR ABC GUIDANCE AND POLICY WHICH

PAGE 02 RUEADWD4457 UNCLAS

USACEAC DEVELOPS.

2. THE ABC GUIDANCE WILL BE PUBLISHED TO ASSIST IN MAINTAINING CONSISTENCY AND FOCUS OF EFFORT WITHIN THE ARMY'S MULTIPLE ABC PROJECTS CURRENTLY ONGOING AND PROPOSED. THE GUIDANCE WILL PROVIDE STANDARD DEFINITIONS, POLICY, COST METHODOLOGY, TRAINING, AND CONTACTS FOR ASSISTANCE. BY MAINTAINING CONSISTENCY OF EFFORT THROUGHOUT THE ARMY, ABC IMPLEMENTATION WILL BE MORE COST EFFECTIVE, ALLOWING EXPORT FROM ONE INSTALLATION TO ANOTHER, THEREBY SAVING ARMY FUNDS BY REUTILIZING IDEAS AND EFFORTS RATHER THAN SPENDING ADDITIONAL RESOURCES ON REINVENTING.

3. TO ASSIST USACEAC, REQUEST MACOMS AND INSTALLATIONS INTERESTED IN OR INVOLVED WITH ABC INITIATIVES IDENTIFY AN ABC POINT OF CONTACT AND SEND THEIR NAMES, PHONE NUMBERS, AND E-MAIL ADDRESSES TO USACEAC, ATTN: SFFM-CA-FI, ROOM 420, ACTIVITY BASED COSTING, 5611 COLUMBIA PIKE, FALLS CHURCH, VA 22041-5050.

4. THE POC FOR ABC AT USACEAC IS GEORGE COVERT, (703) 681-3337, DSN 761-3336, FAX 681-9625. E-MAIL USERS CAN SEND QUESTIONS AND COMMENTS TO COVERTG@PENTAGON-HQDADSS.ARMY.MIL.

BT

## Appendix C - Survey Instruments

### Canvassing Electronic Mail Text

The following text was used as in the initial contact with prospective survey respondents.

Each letter was personalized by using full name and rank, where applicable, and a electronic mail header. For example, this electronic mail message went out to Mr. Sheehan at the Army Material Command at Rock Island Arsenal, IL.

SUBJECT: Activity-Based Costing: AMC - RIA Acct, Fin Anal Div, RIA

AUTHOR: David Ryder <dryder@afit.af.mil> at SMTP-DDN

Date: 23/01/1996

---

Mr. Sheehan,

I am an US Army Civilian attending the Masters in Cost Management program at the Air Force Institute of Technology at Wright-Patt AFB. My thesis topic is a survey of Activity-Based Costing within the Army. Could you direct me to any Points of Contacts who could assist me in my research? Specifically, my sponsor (US Army Cost and Economic Analysis Center) and I are looking for success stories from which Army policy can be formed.

Thank you,

Dave Ryder

GS 1515/13

Figure 26. Canvassing Electronic Mail Message

## Primary Survey

The following text was used as in the primary instrument to survey respondents. There were two sections, a general interest and participation section. This section gave instructions to those with experience to complete the attached actual survey. Instruction was given to return the survey back to me by reply mail, which turned out to be a very effective way to garner responses. Personalized thank you letters were sent back to all that replied.

SUBJECT: Activity-Based Costing: AMC - RIA Acct, Fin Anal Div, RIA

AUTHOR: David Ryder <dryder@afit.af.mil> at SMTP-DDN

Date: 23/06/1996

Mr. Smith,

Army adoption of Activity Based Costing (ABC) is one of the initiatives being studied as part of the re-invention of government under the National Performance Review. I am GS-13 attending the Air Force Institute of Technology Graduate Cost Analysis Program with my follow on assignment at the Army Cost & Economic Analysis Center. My job there will be to develop Army wide policy to support the Voluntary ABC program approved by the ASA(FM&C) last 20 Feb.

I covet your opinions, positive or negative, concerning ABC. In return for you opinions, I can offer you first, the results of the surveys; second, an inside the belt-way perspective of what's happening in ABC, Service Based Costing (SBC), and Standard Service Costing (SSC) via our info-emails; and third, and most important, an impact on policy.

I understand that Activity Based Costing is not the burning issue of the day for many, but if you would, please check the appropriate boxes and return your response by reply mail.

*continued...*

\_\_\_ I'm not the person to ask, but I know somebody who is more likely to know the answers to your questions. They are:

Mr/Ms:

DSN phone #:

email address:

\_\_\_ I would be glad to help, but we don't have any plans to implement anything like activity based costing in our business area.

\_\_\_ ABC is something that I want to know more about. If you send me some more information, I could better answer your questions.

\_\_\_ I want to participate, but don't have time now. Why don't you contact me later and we could set up a 10 minute phone call to talk about your questions. My phone # is:

\_\_\_ I will fill out the attached survey as best I can and will return it as soon as it is complete.

\_\_\_ I'm interested in the results of your research, please send me your findings.

\_\_\_ I only have one thing to say about ABC, and it is:

*continued...*



## ABC SURVEY

This research project is intended to better understand the depth and breadth of Activity-Based Costing (ABC) practices within our service. The US Army Cost & Economic Analysis Center, Falls Church, VA is sponsoring this research being conducted at the Air Force Institute of Technology (AFIT). The results of this survey will be used as direct input into Part Two of the "Army Support Plan for Voluntary ABC." *AFIT is in no way endorsing or participating in this survey except for the role of thesis advisement.*

Please take a few moments and complete this questionnaire. Please enter your answers and send the form back to me by return mail. My email address is [dryder@afit.af.mil](mailto:dryder@afit.af.mil)

1. \_\_ (Y/N) Do want to keep your responses confidential ?
2. One to five word description of your job title / duties.
3. Name and short description of the services provided by your office.
4. Name and short description of services provided by your command.
5. Within 20% accuracy, approximately what percent of your budget is managed using ABC principles?  
  
(0% - 100%) \_\_\_\_\_

*continued...*

6. Within 20% accuracy, approximately what percent of your command is managed using ABC principles?

(0% - 100%) \_\_\_\_\_

7. How comfortable are you and your manager with the current level of ABC training within your organization?

8. How much ABC training (in person weeks) is needed in your organization?

9. What courses do you think would be best, and for whom?

10. Given time and resources, where would you next apply ABC principles?

11. What changes would prompt you to change your mind about ABC?

*continued...*

***The following questions only apply to those using ABC.***

12. What were some of your purposes for implementing ABC? (Y/N)

\_\_\_\_ Product Costing

\_\_\_\_ Process Improvement

\_\_\_\_ Budgeting

\_\_\_\_ Performance Measurement

\_\_\_\_ Cost Reduction

\_\_\_\_ Downsizing

\_\_\_\_ Business Process Re-engineering

\_\_\_\_ Command Directive

\_\_\_\_ Benchmarking

\_\_\_\_ Other \_\_\_\_\_

13. What tools were most beneficial in developing ABC ?

14. What benefits, tangible or intangible, have been realized from ABC implementation?

15. What costs have been most difficult to trace or measure?

*continued...*

16. Where has ABC guidance been useful, where not, where is it missing?

17. What has been the effect of management or leadership involvement?

18. What actions facilitated acceptance of ABC and its implementation?

19. \_\_\_\_ (Y/N) Would you be willing to help us further in our research?

\_\_\_\_\_ Phone Number where you can be reached.

20. \_\_\_\_ (Y/N) Would you be interested in the findings of this research?

Thank You

Figure 27. Primary Survey Instrument

## Final Survey

The following text was used as the second survey instrument. This survey was designed as a telephone protocol for a structured interview. This survey was given to those who were actively involved with Activity-Based Costing and were assumed the most knowledgeable at their site to answer the questions. The interview, was structured into seven phases, and was designed to ask questions to best determine the values for the variables listed (V##:) below the question.

### **Protocol for Structured Interviews**

The following questions are used to gain insight to follow on telephonic (or email) interviews. Even though each interview may be customized to the situation, these questions are designed to find information about the research variables.

#### **Phase 1: Introduction and Formalities.**

Q1: This research being conducted is being sponsored by the US Army Cost and Evaluation Center. I am a student at the Air Force Institute of Technology and am conducting this research for two reasons. I will be working with ABC in my next job at CEAC, and this research fulfills my thesis requirements to graduate. Though AFIT is supervising my work, none of these questions is related to AFIT policy or is in any way endorsed by AFIT. That is our required disclaimer, but we also want to ask you about how we should treat your answers. Do you want your responses to remain (anonymous / publishable)?

Q2: You mentioned you were from a (MACOM, Line Unit, Service Department) type of unit. Could you better describe how your department fit into the organization?

V33: UNIT CATEGORY

*continued...*

## **Phase 2: Review and Confirmation**

Q3: You mentioned that you had (considerable, little, some success) at implementing ABC at your site. Can you expand on this?

V38: LEVEL OF ABC INVOLVEMENT

V34: APPLICATION CATEGORIES

## **Phase 3: Policy Issues**

One of the primary goals of our research is to find *what kind of policy guidance is needed to provide a fertile environment for Activity Based Costing to be effective, efficient, and to flourish in the US Army*. Since you have had some experience working ABC issues, we would really appreciate your candid responses to the following questions.

Q4: What performance measures, if any, were used to measure the effectiveness and efficiency of your ABC operations?

V6: PERFORMANCE MEASURES

V7: EFFECTIVENESS / EFFICIENCY

Q5: Knowing that ABC isn't a silver bullet to answer all cost accounting problems, what other models or substitute methodologies do you have to provided management with the answers they need?

V11: SUBSTITUTE METHODOLOGY

V12: PROBLEMS WHICH ABC DID NOT CURE

*continued...*

Q6: Back to policy, where, if any, is additional guidance and direction needed?  
Where not?

V2: POLICY FAILURES

V3: POLICY VOIDS

#### Phase 4: Implementation

Another major area of interest to our sponsors is the “nitty gritty” of current ABC implementations. We want to key in on captured and reported data.

Q7: You mentioned that you have been using (software tool / software name) in the development of your model. Please describe your model in a bit more detail for us; comment on some of its most useful?

V17: SOFTWARE

V19: USEFUL FEATURES

V20: LESS USEFUL FEATURES

V21: BENEFITS

Q8: You mentioned some of the benefits you have realized. Sometimes there are bits of information that are not worth the effort to capture. Is there anything in your model that takes a lot of time to capture but provide only modest benefits to management?

V20: LESS USEFUL FEATURES

V21: BENEFITS

*continued...*

Q9: Who is using the report data, and for what purpose?

V23: TYPES OF REPORTS

V24: REPORT USERS

Q10: What types of data does your model capture?

V14: CAPTURED DATA

Q11: What costs are excluded from your ABC model?

V15: EXCLUDED COSTS

Q12: How were fixed or sunk costs allocated in your model?

V16: ALLOCATED COSTS

### **Phase 5: Training Issues**

Training is an issue that keeps producing the big question mark at our meetings concerning Activity-Based Costing. Knowing there is precious little course work, and we assume that almost all of training received by folks was with their own professional development initiatives. Flatly, we don't know the current US Army training status concerning ABC principles and what future training is still needed.

Q13: What formal or informal ABC instruction has been attended by yourself and your users?

V25: COURSE WORK

*continued...*



Q14: How have your users been trained? On the job? Formal instruction? Professional development? Seminars? Other means?

V26: TRAINING STATUS

V27: TRAINING METHODOLOGIES

Q15: Who provided the training?

V28: TRAINERS

Q16: Was a consultant used, if so in what role?

V29: CONSULTANTS

#### **Phase Six: Investment**

One last area of interest, and this one goes directly back to benefits and what was invested to achieve them.

Q17: In terms of manpower and dollars, how much is it costing your organization to implement ABC?

V41: ABC COST

V44: GOVERNMENT RESOURCES

*continued...*

Q18: You (mentioned / didn't mention) contract support. How involved are the contractors in supporting ABC efforts ?

V42: CONTRACTOR SUPPORT

V43 : CONTRACTOR COMMITMENT

**Phase Seven: Close**

Q19: We've discussed many things today, and we appreciate your candid comments. As discussed before, we want to assure you (that your comments will remain anonymous / have contributed greatly to ABC research). Would you like a copy of the results of our research?

V4: MANAGEMENT OR LEADERSHIP INVOLVEMENT

Figure 28. Final Survey

## Appendix D - Survey Coding Worksheet

### Overview

The following sample of coding and analysis is of one of the best responses to the survey. The coding and variable analysis was accomplished in multiple steps to insure good housekeeping within the team, and basically followed the following three steps. These steps were accomplished for each of the survey respondents prior to the evaluation of each of the research variables.

STEP 1: Receipt, logging, thanking the respondents, and archiving the survey.

Example 1 shows how surveys were returned and approved by their supervisors for release.

STEP 2: Entering of survey responses into the data base. This was done on a one page summary spreadsheet, Example 2, and was the cover document for the survey in the survey binder.

STEP 3: Conduct the analysis based on the survey answers. Example 3 shows how this was accomplished.

Example 1: "Survey electronic mail response"

From: "Kelley, Karen - G8" <kelleyk@ftmcphsn-emh1.army.mil>  
To: David Ryder <dryder@afit.af.mil>  
Date: Tue, 25 Jun 1996 15:17:24 -0400  
Subject: FW: Activity-Based Costing Survey: FtMcP  
=====

David - Please advise if you need any further input. - Karen  
-----

From: Stormer, William COL - G8  
To: Kelley, Karen - G8  
Subject: RE: Activity-Based Costing Survey: Ft McPherson  
Date: Tuesday, June 25, 1996 2:16PM

go  
-----

From: Kelley, Karen - G8  
To: Stormer, William COL - G8  
Cc: Meyer, Paul - G8  
Subject: RE: Activity-Based Costing Survey: Ft McPherson  
Date: Thursday, June 20, 1996 2:13PM

COL Stormer - I completed survey below. Request your additional  
comments and approval to release.  
-----

From: David Ryder  
To: Kelley, Karen - G8  
Cc: dryder  
Subject: Activity-Based Costing Survey: Ft McPherson  
Date: Wednesday, June 19, 1996 5:57PM

Dear Ms Karen Kelley,

Army adoption of Activity Based Costing (ABC) is one of the  
initiatives being studied as part of the re-invention of  
government under the National Performance Review. I am  
GS-13 attending the Air Force Institute of Technology  
Graduate Cost Analysis Program with my follow on assignment  
at the Army Cost & Economic Analysis Center. My job there  
will be to develop Army wide policy to support the Voluntary  
ABC program approved by the ASA(FM&C) last 20 Feb. Your  
name and email address was acquired from ASA(FM&C) as a  
point of contact in your agency.

I covet your opinions, positive or negative, concerning ABC. In return for your opinions, I can offer you first, the results of the surveys; second, an inside the belt-way perspective of what's happening in ABC, Service Based Costing (SBC), and Standard Service Costing (SSC) via our info-emails; and third, and most important, an impact on policy.

I understand that Activity Based Costing is not the burning issue of the day for many, but if you would, please check the appropriate boxes and return your response by reply mail.

+++++

\_\_\_ I am not the person to ask, but I know somebody who is more likely to know the answers to your questions. They are:

Mr/Ms:  
DSN phone #:  
email address:

\_\_\_ I would be glad to help, but we don't have any plans to implement anything like activity based costing in our business area.

\_\_\_ ABC is something that I want to know more about. If you send me some more information, I could better answer your questions.

\_\_\_ I want to participate, but don't have time now. Why don't you contact me later and we could set up a 10 minute phone call to talk about your questions.

My phone # is:

X I will fill out the attached survey as best I can and will return it as soon as it is complete. (I WOULD REALLY APPRECIATE THIS; THESE SURVEYS WILL BE THE PRIMARY DATA SOURCE FOR RESEARCH FINDINGS AND WILL EVENTUALLY BE USED TO FORM POLICY.)

X   I'm interested in the results of your research, please send me your findings.

       I only have one thing to say about ABC, and it is:

+++++  
ABC SURVEY

This research project is intended to better understand the depth and breadth of Activity-Based Costing (ABC) practices within our service. The US Army Cost & Economic Analysis Center, Falls Church, VA is sponsoring this research being conducted at the Air Force Institute of Technology (AFIT). The results of this survey will be used as direct input into Part Two of the Army Support Plan for Voluntary ABC. AFIT is in no way endorsing or participating in this survey except for the role of thesis advisement.

Please take a few moments and complete this questionnaire. Please enter your answers and send the form back to me by return mail. My email address is [dryder@afit.af.mil](mailto:dryder@afit.af.mil)

1.   N   (Y/N) Do want to keep your responses confidential ?
2. One to five word description of your job title / duties.  
CHIEF, ABC TASK FORCE
3. Name and short description of the services provided by your office.  
ABC TASK FORCE, FINANCE & BUSINESS DIVISION,  
DIRECTORATE OF RESOURCE MANAGEMENT, HQ FORSCOM.

THE TASK FORCE WAS CREATED TO ASSESS THE VALUE OF ABC TO THE COMMAND, AND TO ASSIST OUR INSTALLATIONS IN IMPLEMENTING AS MOST EFFECTIVELY AND ECONOMICALLY MEETS THE NEEDS OF THIS COMMAND. GOAL AT THIS POINT IS TO PURSUE ACTIVITY-BASED MANAGEMENT, A COMBINATION OF ABC, PROCESS MANAGEMENT,

PERFORMANCE MEASUREMENT, AND PROCESS  
REDESIGN TO MEET CUSTOMERS' QUALITY AND  
RESOURCE REQUIREMENTS.

4. Name and short description of services provided by your command.

US ARMY FORCES COMMAND - MISSION IS TO TRAIN,  
MOBILIZE, AND DEPLOY LAND FORCES WORLDWIDE,  
IN RESPONSE TO CONTINGENCIES AND OTHER CRISIS  
SITUATIONS.

5. Within 20% accuracy, approximately what percent of your budget is managed using ABC principles?

(0% - 100%) \_\_0\_\_

6. Within 20% accuracy, approximately what percent of your command is managed using ABC principles?

(0% - 100%) \_\_ASK AGAIN IN 6 MONTHS\_\_

7. How comfortable are you and your manager with the current level of ABC training within your organization?

COMFORTABLE - TRAINING IS ONGOING  
THROUGHOUT THE XVIII ABN CORPS.  
OTHER CORPS ARE CONTEMPLATING  
FUTURE TRAINING REQUIREMENTS.

8. How much ABC training (in person weeks) is needed in your organization?

UNKNOWN AT PRESENT; HOWEVER, ANTICIPATE  
A NEED TO TRAIN 20% OF THE ORGANIZATION,  
INCLUDING EXECUTIVES, MIDDLE MANAGERS,  
AND FUTURE USERS.

9. What courses do you think would be best, and for whom?

GENERAL ABC CONCEPTS FOR EXECS AND MGRS,  
PLUS TRAINING ON CONCEPTS, APPLICATIONS,  
AND SOFTWARE USAGE FOR USERS.

10. Given time and resources, where would you next apply ABC principles? TO I CORPS AND III CORPS INSTALLATIONS

11. What changes would prompt you to change your mind about ABC?

BETTER ALIGNMENT OF OUR FINANCIAL MANAGEMENT SYSTEM TO SUPPORT PROCESS MANAGEMENT AND ACTIVITY MANAGEMENT WOULD HELP CONVERT SKEPTICS AND CYNICS TO ENTHUSIASTIC SUPPORTERS.

The following questions only apply to those using ABC.

12. What were some of your purposes for implementing ABC? (Y/N)

☐ Product Costing  
☒ Process Improvement  
☐ Budgeting  
☒ Performance Measurement  
☐ Cost Reduction  
☐ Downsizing  
☒ Business Process Re-engineering  
☐ Command Directive  
☒ Benchmarking  
☐ Other

13. What tools were most beneficial in developing ABC ?

GOOD SOFTWARE - IN OUR CASE, SOFTWARE FROM ABC TECHNOLOGIES, INC.

OTHER NEEDED - APPEALING AND CLEAR TRAINING MATERIALS

14. What benefits, tangible or intangible, have been realized from ABC implementation?

PLEASE ASK AGAIN IN 6 MONTHS



15. What costs have been most difficult to trace or measure?

MODELS ARE IN PROGRESS OF BEING  
COSTED; ANTICIPATE CONTRACT COSTS.

16. Where has ABC guidance been useful, where not, where is it missing?

NEED CLEAR GUIDANCE ON ARMY OR DOD  
COSTING POLICY WITH RESPECT TO ABC COSTING.

17. What has been the effect of management or leadership involvement?

EXCELLENT LEADERSHIP SUPPORT IN FORSCOM

18. What actions facilitated acceptance of ABC and its implementation?

LEADERSHIP COMMITMENT / FUNCTIONAL CHAMPIONS

19. \_\_Y\_\_ (Y/N) Would you be willing to help us further in our research?

Phone Number where you can be reached.  
(404) 669-6210 / DSN 367-6210

20. \_\_Y\_\_ (Y/N) Would you be interested in the findings of this research?

THANK YOU! - KAREN KELLEY

Thank You

( GC14 / GABA ) Survey SN#6

Example 2: Survey Inputs ( Original is smaller print on one page )

Kelley, Karen - G8 GC14 6 FT McPherson

PRESURVEY INPUTS

I'm not the person to ask, but I know somebody who is

Mr/Ms: \_\_\_\_\_  
DSN phone #: \_\_\_\_\_  
email address: \_\_\_\_\_

or

Mr/Ms: \_\_\_\_\_  
DSN phone #: \_\_\_\_\_  
email address: \_\_\_\_\_

I would be glad to help, but we don't have any plans to implement anything like activity based costing in our

ABC is something that I want to know more about. If you send me some more information,

I want to participate, but don't have time now. Why don't you contact me later and we could set up a  
My phone # is: \_\_\_\_\_

☒ I will fill out the attached survey as best I can and will return it as soon as it is complete. (I WOULD

☒ I'm interested in the results of your research, please send me your findings.

☐ I only have one thing to say about ABC, and it is:

...(from 3.) Goal at this point is to pursue activity-based Mgt, a combination of ABC, processing, performance measurement, and process redesign to meet customer's quality and resource requirements.

SURVEY INPUTS

1. Do want to keep your responses confidential? n

2. One to five word description of your job title / duties. Chief, ABC Task Force

3. Name and short description of the services you provide  
ABC task Force was created to assess the value of ABC to the Command, and to assist our installations in implementing as most effectively and economically meets the needs of this command. ...above

4. Name and short description of services provided by your cmd  
US Army Forces Command-Mission is to train, mobilize, and deploy land forces worldwide, in response to contingencies and other crisis situations.

5. Percent of budget using ABC principles? 0%

6. Percent of Command using ABC principles? ask again in 6 months

7. How comfortable are you and your manager with the current level of ABC training within your organization?  
Comfortable-Training is ongoing throughout the XVIII ABN Corps. Other Corps are contemplating future training requirements.

8. How much ABC training (in person weeks) is needed?

unknown at present-however, anticipate a need to train 20% of the organization, including executives, middle managers, and future users.

9. What courses do you think would be best, and for whom?

General ABC concepts for Execs and mgrs, plus training on concepts, applications, and software usage for users.

10. Given time and resources, where would you next apply ABC Principles?

To I Corps and III Corps installations

11. What changes would prompt you to change your mind about ABC?

Better alignment of our financial mgt system to support process mgt and activity mgt would help convert skeptics and cynics to enthusiastic supporters.

12. What were some of your purposes for implementing ABC? (Y/N)

- ☐ Product Costing
- ☒ Process Improvement
- ☐ Budgeting
- ☒ Performance Measurement
- ☐ Cost Reduction
- ☐ Downsizing
- ☒ Business Process Re-Engineering
- ☐ Command Directive
- ☒ Benchmarking
- ☐ Other

13. What tools were most beneficial in developing ABC ?

Good s/w - in our case, s/w from ABC Technologies, Inc. Other needed - appealing and clear training materials

14. What benefits, tangible or intangible, have been realized from ABC?

please, ask again in 6 months

15. What costs have been most difficult to trace or measure?

models are in progress of being costed; anticipate contract costs.

16. Where has ABC guidance been useful, where not, where is it missing?

need clear guidance on Army or DOD costing policy with respect to ABC costing.

17. What has been the effect of management or leadership

excellent leadership support in FORSCOM

18. What actions facilitated acceptance of ABC and its implementation?

leadership commitment/ functional champions

19. (Y/N) Would you be willing to help us further in our research?  
Phone Number where you can be reached.

y  
404-669-6210, DSN 367-6210

20. Would you be interested in the findings of this research?

y

Example 3: "A" survey response:

6	Kelly, Karen
<b>RESEARCH QUESTION #1</b>	
<b>V1: Policy Successes</b>	
Specific applied policies which have helped solve ABC implementation problems.	
Evidences	
16. Where has ABC guidance been useful, where not, where is it missing?	
1st S16:	need clear guidance on Army or DOD costing policy with respect to ABC costing.
Subjective Input	
V1:	General guidance is good, but really needs more specifics, especially costing policy
<b>V2: Policy Failures</b>	
Specific policies which have unduly burdened ABC implementation efforts.	
Evidences	
16. Where has ABC guidance been useful, where not, where is it missing?	
1st S16:	need clear guidance on Army or DOD costing policy with respect to ABC costing.
6. Policy Failures and Policy Voids	
2nd T6:	
Subjective Input	
V2:	Not having guidance has burdened us with having to invent it, using contractors
<b>V3: Policy Voids</b>	
Those policy areas where guidance was needed but not provided.	
Evidences	
16. Where has ABC guidance been useful, where not, where is it missing?	
1st S16:	need clear guidance on Army or DOD costing policy with respect to ABC costing.
6. Policy Failures and Policy Voids	
2nd T6:	
Subjective Input	
V3:	Costing policy with respect to ABC costing, don't seem to be in concert

6		0
<b>V4: Management or Leadership Involvement</b>		
Level of involvement and support given by management to implement ABC, answered in terms of policy, resources, and enthusiasm.		
Evidences		
17. What has been the effect of management or leadership		
1st S17	excellent leadership support in FORSCOM	
18. What actions facilitated acceptance of ABC and its implementation?		
2nd S18	leadership commitment/ functional champions	
Subjective Input		
V4:	Enthusiastic Support from chain of command has made it happen. Leadership commitment and functional champions has made it work	
<b>V5: Actions Promoting ABC</b>		
Those decisions made which promoted the use of ABC		
Evidences		
18. What actions facilitated acceptance of ABC and its implementation?		
1st S18	leadership commitment/ functional champions	
17. What has been the effect of management or leadership		
2nd S17	excellent leadership support in FORSCOM	
Subjective Input		
V5:	Enthusiastic Support from chain of command has made it happen. Leadership commitment and functional champions has made it work	
<b>V6: Performance Measures</b>		
Measurable evidences of ABC success.		
Evidences		
6. Policy Failures and Policy Voids		
T6		
Subjective Input		
V6:	Too early to measure, but having a significant resource commitment is an evidence of ABC concepts being fully endorsed	
<b>V7: Effectiveness / Efficiency</b>		
Effectiveness is the ability of the ABC system to answer management's questions.		
Efficiency is the perceived ratio of benefits to cost of the process.		
Evidences		
7. Software, useful features, less useful features, & benefits		
T7		
Subjective Input		
V7:	Too early to tell	

6		0
<b>V8: Fertile Ground</b>		
Those organizational activities which are ripe for ABC implementation.		
Evidences		
10. Given time and resources, where would you next apply ABC Principles?		
1st S10	<b>To I Corps and III Corps installations</b>	
3. Name and short description of the services you provide		
2nd S3	<b>ABC task Force was created to assess the value of ABC to the Command, and to assist our installations in implementing as most effectively and economically meets the needs of this command. ...above</b>	
4. Name and short description of services provided by your cmd		
2nd S4	<b>US Army Forces Command-Mission is to train, mobilize, and deploy land forces worldwide, in response to contingencies and other crisis situations.</b>	
Subjective Input		
V8	<b>Cmd desire to expand to 1st and 3rd Corps. Focus is on installation management to meet the needs of the post MACOM tenants</b>	
<b>V9: Catalysts for ABC Growth and Use (2nd)</b>		
Those environmental and leadership factors which, when present, promote the use of ABC.		
Evidences		
11. What changes would prompt you to change your mind about ABC?		
1st S11	<b>Better alignment of our financial mgt system to support process mgt and activity mgt would help convert skeptics and cynics to enthusiastic supporters.</b>	
9. What courses do you think would be best, and for whom?		
2nd S9	<b>General ABC concepts for Execs and mgrs, plus training on concepts, applications, and software usage for users.</b>	
17. What has been the effect of management or leadership		
2nd S17	<b>excellent leadership support in FORSCOM</b>	
18. What actions facilitated acceptance of ABC and its implementation?		
2nd S18	<b>leadership commitment/ functional champions</b>	
Subjective Input		
V9:	<b>Better alignment of our financial mgt system to support process mgt and activity mgt would help convert skeptics and cynics to enthusiastic supporters.</b>	

**V10: Reasons Not to Implement ABC**

The specific reasons ABC was not considered, considered inadequate, or thought to be unworthy of resources.

Evidences

17. What has been the effect of management or leadership

1st S10 **To I Corps and III Corps installations**

5. Percent of budget using ABC principles?

2nd S5

**0**

6. Percent of Command using ABC principles?

2nd S6 **ask again in 6 months**

Subjective Input

V10 **Where mission does not fit ABC uses the actual combat units**

**V11: Substitute Methodology**

Other models or procedures used to provide detailed costing information.

Evidences

5. Substitute Methodology and Problems ABC didn't cure

1st T5

Subjective Input

V11: **X - No answer**

**V12: Problems which ABC did not solve**

Identified inadequacies of an ABC solution.

Evidences

11. What changes would prompt you to change your mind about ABC?

1st S11 **Better alignment of our financial mgt system to support process mgt and activity mgt would help convert skeptics and cynics to enthusiastic supporters.**

5. Substitute Methodology and Problems ABC didn't cure

2nd T5

Subjective Input

V12 **Financial Mgt Systems**

## RESEARCH QUESTION #2

**V13: Motivation**

Specific (+) reasons why ABC was implemented, and (-) problems solved.

Evidences

12. What were some of your purposes for implementing ABC?

1st S12 / Process Improvement // Performance Measurement // Downsizing / Business Process Re-Engineering // Benchmarking /

16. Where has ABC guidance been useful, where not, where is it missing?

2nd S14 please, ask again in 6 months

Subjective Input

V13 Improvements in / Process Improvement // Performance Measurement // Downsizing / Business Process Re-Engineering // Benchmarking /

**V14: Captured Data**

Specific metrics which their ABC model considers relevant, hopefully with some insight to manual or automated capturing methods.

Evidences

10. Captured Data

1st T10

Subjective Input

V14 Installation activity data

**V15: Excluded Costs**

Those metrics which were considered too hard to capture, irrelevant, or which a proxy variable could be used.

Evidences

11. Excluded Costs

1st T11

Subjective Input

V15 X - No Answer

**V16: Allocated Costs**

Those costs (sunk, fixed, direct, etc.) that were used in ABC calculations.

Evidences

12. Allocated Costs

1st T12

Subjective Input

V16 X - No Answer



6		0
---	--	---

**V17: Software**

Any COTS or developed programs used to implement ABC models.

Evidences

13. What tools were most beneficial in developing ABC ?

1st S13 **Good s/w - in our case, s/w from ABC Technologies, Inc. Other needed - appealing and clear training materials**

7. Software, useful features, less useful features, & benefits

2nd T7

Subjective Input

V17 **Good s/w - in our case, s/w from ABC Technologies, Inc. Other needed - appealing and clear training materials**

**V18: Development Tools**

Any tools used to develop the ABC model, to include software, books, or methodologies provided by consultants.

Evidences

13. What tools were most beneficial in developing ABC ?

1st S13 **Good s/w - in our case, s/w from ABC Technologies, Inc. Other needed - appealing and clear training materials**

Subjective Input

V18 **Good s/w - in our case, s/w from ABC Technologies, Inc. Other needed - appealing and clear training materials**

**V19: Useful Features**

Those things which their ABC model does well and is used by managers.

Evidences

7. Software, useful features, less useful features, & benefits

1st T7

Subjective Input

V19 **X - No Answer**

**V20: Less Useful Features**

Those things which their ABC model does but provides little value added.

Evidences

7. Software, useful features, less useful features, & benefits

1st T7

8. Less useful features and benefits

1st T8

Subjective Input

V20 **X - No Answer**

**V21: Benefits**

Tangible and intangible benefits which have come from ABC being implemented within the organization.

Evidences

14. What benefits, tangible or intangible, have been realized from ABC?

1st S14 **please, ask again in 6 months**

7. Software, useful features, less useful features, & benefits

1st T7

8. Less useful features and benefits

2nd T8

Subjective Input

V21 **Cost Awareness has increased, but please ask us again in 6 months**

**V22: Difficult Costs**

Those relevant metrics which are difficult to track, and may have required proxies, or completely left of the model.

Evidences

15. What costs have been most difficult to trace or measure?

1st S15 **models are in progress of being costed; anticipate contract costs.**

Subjective Input

V22 **models are in progress of being costed; anticipate contract costs.**

**V23: Types of Reports**

The outputs from the ABC system that are of use to the command.

Evidences

14. What benefits, tangible or intangible, have been realized from ABC?

1st S14 **please, ask again in 6 months**

9. Types of reports and report users

2nd T9

Subjective Input

V23 **please, ask again in 6 months**

**V24: Report Users**

Consumers of the ABC system.

Evidences

9. Types of reports and report users

1st T9

Subjective Input

V24 **X - No Answer**

## RESEARCH QUESTION #3

**V25: Course Work**

Formal ABC relevant course work relevant to users or management.

Evidences

13. Course Work

1st T13

7. How comfortable are you and your manager with the current level of ABC training within your organization?

2nd S7 **Comfortable-Training is ongoing throughout the XVIII ABN Corps. Other Corps are contemplating future training requirements.**

8. How much ABC training (in person weeks) is needed?

2nd S8 **unknown at present-however, anticipate a need to train 20% of the organization, including executives, middle managers, and future users.**

9. What courses do you think would be best, and for whom?

2nd S9 **General ABC concepts for Execs and mgrs, plus training on concepts, applications, and software usage for users.**

Subjective Input

V25 **General ABC concepts for Execs and mgrs, plus training on concepts, applications, and software usage for users.**

**V26: Training Status**

The current state of saturation of ABC related coursework in the organization.

Evidences

14. Training Status and Training Methodologies

1st T14

7. How comfortable are you and your manager with the current level of ABC training within your organization?

2nd S7 **Comfortable-Training is ongoing throughout the XVIII ABN Corps. Other Corps are contemplating future training requirements.**

8. How much ABC training (in person weeks) is needed?

2nd S8 **unknown at present-however, anticipate a need to train 20% of the organization, including executives, middle managers, and future users.**

Subjective Input

V26 **unknown at present-however, anticipate a need to train 20% of the organization, including executives, middle managers, and future users.**

6		0
<b>V27: Training Methodologies</b>		
The approach used by organizations to train their staff and management.		
Evidences		
14. Training Status and Training Methodologies		
1st T14		
Subjective Input		
V27	<b>Comfortable-Training is ongoing throughout the XVIII ABN Corps. Other Corps are contemplating future training requirements.</b>	
<b>V28: Trainers</b>		
ABC Education providers.		
Evidences		
15. Trainers		
1st T15		
Subjective Input		
V28	<b>No Answer, but did state they intended to teach Execs, i.e. need professional teachers with extensive knowledge, not canned courses.</b>	
<b>V29: Consultants</b>		
Experts used in the planning and implementation of ABC.		
Evidences		
16. Consultants		
1st T16		
Subjective Input		
V29	<b>No Answer, but did expend approx. \$3M to firm to implement, not a home grown solution.</b>	
<b>V30: Training Material Requested</b>		
The areas which respondents feel training would be useful, in terms of course name and content.		
Evidences		
8. How much ABC training (in person weeks) is needed?		
1st S8	<b>unknown at present-however, anticipate a need to train 20% of the organization, including executives, middle managers, and future users.</b>	
9. What courses do you think would be best, and for whom?		
1st S9	<b>General ABC concepts for Execs and mgrs, plus training on concepts, applications, and software usage for users.</b>	
Subjective Input		
V30	<b>General ABC concepts for Execs and mgrs, plus training on concepts, applications, and software usage for users.</b>	

6		0
<b>V31: Target Audience for training</b>		
The areas which respondents feel training would be useful, in terms of course name and content.		
Evidences		
9. What courses do you think would be best, and for whom?		
1st S9	General ABC concepts for Execs and mgrs, plus training on concepts, applications, and software usage for users.	
2. One to five word description of your job title / duties.		
1st S2	Chief, ABC Task Force	
Subjective Input		
V31	General ABC concepts for Execs and mgrs, plus training on concepts, applications, and software usage for users.	
<b>V32: Best use of Training Dollars</b>		
The training of a specific audience that would be most beneficial for ABC promotion within the organization.		
Evidences		
9. What courses do you think would be best, and for whom?		
1st S9	General ABC concepts for Execs and mgrs, plus training on concepts, applications, and software usage for users.	
7. How comfortable are you and your manager with the		
1st S2	Chief, ABC Task Force	
Subjective Input		
V32	Leadership buy-in has been identified as critical; they must understand before they buy in	

## RESEARCH QUESTION #4

**V33: Unit Category**

Description of type of organizations using ABC.

Evidences

3. Name and short description of the services you provide

1st S3 **ABC task Force was created to assess the value of ABC to the Command, and to assist our installations in implementing as most effectively and economically meets the needs of this command. ...above**

2. What is your unit category?

1st T2

2. One to five word description of your job title / duties.

2nd S2 **Chief, ABC Task Force**

4. Name and short description of services provided by your cmd

2nd S4 **US Army Forces Command-Mission is to train, mobilize, and deploy land forces worldwide, in response to contingencies and other crisis situations.**

Subjective Input

V33: **US Army Forces Command-Mission is to train, mobilize, and deploy land forces worldwide, in response to contingencies and other crisis situations.**

**V34: Application Categories**

The general services area and specific applications which ABC models or principles are being used or planned.

Evidences

3. Name and short description of the services you provide

1st S3 **ABC task Force was created to assess the value of ABC to the Command, and to assist our installations in implementing as most effectively and economically meets the needs of this command. ...above**

3. Level of involvement and Application Categories

1st T3

4. Name and short description of services provided by your cmd

2nd S4 **US Army Forces Command-Mission is to train, mobilize, and deploy land forces worldwide, in response to contingencies and other crisis situations.**

5. Percent of budget using ABC principles?

2nd S5 **0**

6. Percent of Command using ABC principles?

2nd S6 **ask again in 6 months**

Subjective Input

V34 **to assist our installations in implementing as most effectively and economically meets the needs of this command.**

6		0
<b>V35: Good Categories</b>		
<b>V36: Poor Categories</b>		
<b>V37: Overall Army Wide Use of ABC</b>		
Evidences		
5. Percent of budget using ABC principles?		
1st S5	0	
6. Percent of Command using ABC principles?		
1st S6	ask again in 6 months	
3. Name and short description of the services you provide		
2nd S3	ABC task Force was created to assess the value of ABC to the Command, and to assist our installations in implementing as most effectively and economically meets the needs of this command. ...above	
4. Name and short description of services provided by your cmd		
2nd S4	US Army Forces Command-Mission is to train, mobilize, and deploy land forces worldwide, in response to contingencies and other crisis situations.	
10. Given time and resources, where would you next apply ABC Principles?		
2nd S10	To I Corps and III Corps installations	
11. What changes would prompt you to change your mind about ABC?		
2nd S11	Better alignment of our financial mgt system to support process mgt and activity mgt would help convert skeptics and cynics to enthusiastic supporters.	
Subjective Input		
GOOD CATEGORIES: The general services area or specific applications where ABC models thrive and are being used effectively.		
V35	All expectations at this time, but installation management seems very promising	
BAD CATEGORIES: The general services area or specific applications where ABC flounders and models are not being used effectively.		
V36	Combat Units have not been considered	
OVERALL ARMY WIDE ABC USE: Generally, the types of organizations and applications which ABC principles are being adapted.		
V37	Service Providers, MACOM "overhead" agencies	

6

0

**V38: Level of ABC Involvement**

The extent of ABC involvement and enthusiasm of the respondent.

Evidences

19. (Y/N) Would you be willing to help us further in our research?

1st S19 **y 404-669-6210, DSN 367-6210**

20. Would you be interested in the findings of this research?

1st S20 **y**

1. Do want to keep your responses confidential ?

2nd S1 **n**

3. Level of involvement and Application Categories

2nd T3

Subjective Input

V38: **A+++ Extremely excited. Many emails sent to find status of this thesis and to find preliminary findings. I was invited to come on a site visit.****V39: Percent of Budget in ABC**

The breadth of ABC involvement in terms of budget

Evidences

5. Percent of budget using ABC principles?

1st S5 **0**

Subjective Input

V39 **0, but will change in the next six months****V40: Percent of Command in ABC**

The breadth of ABC involvement in terms of command services

Evidences

6. Percent of Command using ABC principles?

1st S6 **ask again in 6 months**

Subjective Input

V40 **0 - ask again in 6 months****V41: ABC Cost**

In estimated dollars, the total of all expended and future ABC implementation costs for the organization of the respondent.

Evidences

17. ABC Cost and Government Resources

1st T17

Subjective Input

V41 **No Answered - Sensitive area from other sources we have heard \$3M**



6		0
<b>V42: Contract Support</b>		
Names of any support contractors or consultants involved with organization		
Evidences		
17. ABC Cost and Government Resources		
1st T17		
18. Contractor Support and Contractor Commitment		
1st T18		
Subjective Input		
V42	Not given. Survey was responded to prior to the letting of the contract, think ABM was selected.	
<b>V43: Contractor Commitment</b>		
Resource commitment of contractor to the organization.		
Evidences		
18. Contractor Support and Contractor Commitment		
1st T18		
Subjective Input		
V43	Not answered. Survey was answered prior to letting of contract, assume extremely heavy contractor commitment.	
<b>V44: Government Resources</b>		
Government resources used in the implementation of ABC		
Evidences		
17. ABC Cost and Government Resources		
1st T17		
Subjective Input		
V44		

# FINAL EVALUATION

6

0

## RESPONSE EVALUATION

Major Lee's Thoughts Concerning this Survey Response:

V45 very good response (took 5 days) currently using ABC

Dave Ryder's Thoughts Concerning this Survey Response:

V46 One of top five responses

General Category of Respondent

V47 Chief, ABC Task Force in Forces Command

Type Response:

V48 A

1st Survey Filled out:

V49 y

2nd Survey Candidate:

V50 y (absolutely)

Subjective Rating of Interest (1-10, 10 Max)

V51 10

Follow-up Action Required

V52 call and keep him in a touch

## Appendix E - Variable Analysis and Survey Responses

Code	Variable 1 Policy Successes Responses
1110	Discipline in the Accounting Field, where enforcement of uniform standards and AMS structures has been prevalent, success has followed.
1110	NPR has had a positive effect on fostering an ABC environment. Our TQM folks have joined with us in our ABC efforts. This has been a good marriage. TQM teams help determine the activities
1110	We are very enthusiastically pursuing identification of non-value added processes and better business management
1120	General guidance is good, but really needs more specifics, especially costing policy
1120	Internal Review Type Issues
1120	Something I hope you will discover. We are a policy making organization and believe our policies make sense and help.
1120	We had success with Fee For Service studies. We identified cost drivers and activities, but FFS is not pure ABC. The success was acceptance by our customer base as a pilot billing process.
1130	Having model built "outside", elimination of possible bias
1130	In developing unit cost factors
1130	It has be useful in that it reduces the complexity of the bases for overhead distribution by using only four methods for distribution.
1130	The entire workforce, where ABC is being implemented, needs to be kept abreast of ABC and its true intent. Normally, mgt personnel received guidance and not the workforce
1130	Using Army Mgt Structure Codes (AMSCODES) against activities
1140	Other bases seem to be covered, indicates somewhat happy with policies
1140	What we have works
1150	BTL: We do ABC, We know our costs, We report our true costs, We hit the BRAC list
1150	HAVEN'T SEEN ANY ABC GUIDANCE.
1150	Many policies mentioned, none could be classified as "successes"
1150	Our success stories really don't have anything to do with ABC. I did make some phone calls to different RM shops and no one seems to have any success stories that they want to share.
1150	Please forward any guidance you know of, we have none
1150	We have been waiting for guidance from CEAC on direction, it didn't come. We can't wait, so we are forming working groups to establish policy for our sr leadership to approve
1910	All policy success have no longer Army stories, These folks went to DFAS
1910	Although I do not know how successful ABC has been there, I know that they are still actively pursuing it, especially in their re-engineering efforts
1910	DPSC in Philadelphia was utilizing ABC when BG Glisson was there.
1910	Had published copies of ASA(FM&C) reports
1950	ABC is Fun !!!

Code	Variable 2 Policy Failures Responses
1150	"Big Brother Issues"
1150	Budget folks still fund programs, not services. To them G&A is just a add-on factor. Policies have to be made to make a complete cultural shift away from just paying bills to have people on staff to managing programs by cost drivers
1150	Out here in the hinterlands, we think the idea is good, but application is hindered at the top. In DC they think the idea is good, but application is hindered by the field. Maybe you can get the two together.
1150	The traditional accounting policies which promote the status quo.
1150	Understood ABC to be a DBOF reimbursable program
1160	
1160	Not having guidance has burdened us with having to invent it, using contractors
1170	HAVEN'T SEEN ANY ABC GUIDANCE.
1170	I am concerned about the DOD policy of BASOPS reimbursement. As I understand the politics, DOD is moving away from the concept of charging customers for BASOPS services. This is directly opposed to the idea of ABC and the principles of the NPR
1170	Reorganization tend to hurt ABC type initiatives.
1170	
1170	There are entrenched barriers to ABC that make it difficult to make ABC mandatory, however there is no rule that says ABC cannot be used in day to day operations. I believe we need to have top-down mgmt spt before ABC can become effective.
1170	Too many systems are built form HQ logic, and not for the person that has to use them. Systems do not designed to provide sufficient detail for decision making at the lowest user level.
1170	Unfortunately, our HQ has defined our units of output so limitedly that it is difficult to us our Unit Cost data as a managerial tool. We are, hopefully, in the process of correcting this
1180	Model Structure training (how to build an ABC model)
1180	Note: we did not try to reconstruct the past, that would have been very difficult. We started collecting data clean, it may take a year to come up with usable data, but it will all be credible and "owned" by users. Inherited data would have caused serious problems.
1180	Overhead is evenly applied to all direct labor man-hours based on standardized rates. Costs such as compensation, depreciation, equip maintenance and other OH areas are applied across the board and do not necessarily relate to the organization
1180	Peanut Butter spreading of costs: Cost to operate two 5000sqft gyms is not the same as operating one 10000sqft gym. Lots of bickering. When our analyses actually who's kasern was going to be closed .....
1190	"Fee For Service might provide a roadmap on the 'ground not to tread upon' "
1190	Beware of what happens to things when the are translated from civilian for-profit practices into military uses.
1190	Experiments at Walter Reed MC & Pentagon Health Clinic have gone silent. Concerned about implementation failures at those locations
1190	Garbage in, Garbage out. The lack of usage at the local level causes severe problems. I fear that some very important decisions are being made, or will be made, on the basis of unreliable data.

Code	Variable 2 - Continued Policy Failures Responses
1190	I am against reimbursable accounts because they are very time consuming and buy nothing for the training of soldiers and maintaining our defense. For some DRMs, this is a way of expanding staffs and workload. Many man-hours are req to maintain costs and t
1190	I had a number of reports (some from literature) that WRMC had ABC policies in place, but now nobody has any knowledge of ABC still there. This is one of five POCs, all with the same message. ABC has disappeared.
1190	My concern is that Korea will be compared with the rest of the Army and in some cases we're just not comparable...We also have a number of remote sites with low population figures. If we decide we're going cost per capita, our unit prices will be too
1910	Had published copies of ASA(FM&C) reports, but couldn't find them when I asked for them.
1950	N/A

Code	Variable 3 Policy Voids
1110	Concerned about Army Financial Systems will not support ABC
1110	Security and processing accuracy (i.e. data from payroll should be protected!!)
1120	Any help would be appreciated, in the mean time we are marching on
1120	Costing policy with respect to ABC costing, don't seem to be in concert
1120	HAVEN'T SEEN ANY ABC GUIDANCE.
1120	Missing DA and DOD guidance, AMC guidance is being formed in the void
1120	Please forward any guidance you know of, we have none.
1120	The Army is eliminating AR 5-9, offpost support, at the end of this FY. But, the idea is that we are suppose to be shopping for support -- from the lowest bidder!
1120	We have been waiting for guidance from CEAC on direction, it didn't come. We can't wait, so we are forming working groups to establish policy for our sr leadership to approve
1120	We hope to be making an impact in this area. The field is starving for direction. Good or bad, they just want to be given some insights from the DA level. They want to be in concert with DA, not doing something they might have to redo later
1130	TRADOC selected us as a pilot project location, and didn't dictate any policy to us. The jury is still out on this (paraphrase)
1130	Unaware of Policies, Uncomfortable to be chosen on a steering committee and really doesn't know much about ABC
1140	As voids were found, we addressed them.
1140	On how to keep track of labor costs as well as G&A expenses.
1910	The missing link was in the 'how to' areas, no policy voids mentioned.
1950	N/A

Code	Variable 4 Management or Leadership Involvement
1110	Enthusiastic Support from chain of command has made it happen. Leadership commitment and functional champions has made it work.
1110	FORSCOM has strong leadership involvement and support, spanning a number of years
1110	Involvement very high, Commanders are in unison, garrison managers seemed resourced.
1110	Management was hot to reduce overhead
1110	our accounting procedures are mostly Command Directive
1110	Our leadership enthusiastically supports our attendance at workshops.
1110	Post Commander is very involved, we are only trickle down of that effort
1110	The Commanding General and key mgt personnel realizing the need for change in the way we currently do business. Accepting ABC as one of those tools needed in making those changes.
1110	There is no doubt senior leadership in the Financial Management community are convinced of ABC's value. We have a clear charter to do what needs to be done to make it happen.
1130	Commitment of Resources to travel to MACOM ABC Working Group Meetings, just to get things rolling
1130	DBOF and FFS drove us in the ABC direction, ldrship support our efforts
1130	Good support out of our local leadership
1130	Higher HQ supports the ABC efforts here
1130	Sent to the Working group meeting by mgmt
1130	TRADOC's home for ABC is in the Planning, Analysis, and Evaluation Directorate of the DCSRM. Forward operating agencies, such of his have no DBOF work or model capability
1140	Good leadership can make this work, but the demands of so many other issues dwarf ABC and push it to the back burner.
1140	Leadership wanted something other than politics involved in downsizing. Also, a real need by management to find out true costs, especially in quality of life services such as child care
1140	Management wanted to talk to me at length how to fix their problems. (this is a follow on action when I get to CEAC). Indicates caring leadership which has gotten in a bind in managerial accounting.
1140	Somewhat involved with things beyond traditional costing, This looks like a local effort being endorsed by local commanders.
1140	The partnership of Commanders and Internal Review folks
1150	ABC and SBC are the rage right now. Without the right disciplines and accounting systems, Buzzwords + Voodoo will make consultants rich.
1150	DOD buys buzz word programs by those who are clueless about what is going on in the field and what it is like to manage an installation. The programs are costly and are merely mouthed by the mgmt decision makers who have no intention of changing their ways
1150	Had a consultant come in last year, ABC didn't sell
1150	His job which dealt with ABC was abolished
1150	Management directed it, but then didn't use it.

Code	Variable 4 - Continued Management or Leadership Involvement
1150	The extent of leadership involvement ends at the gate
1150	We have received a positive briefing on ABC, other than that, nothing about ABC has been mentioned.
1160	Home Grown efforts
1160	no involvement, except to applaud results. ABC team has authority to make recommendations and correct cost acctng errors as identified within the study
1170	ABC was a discussion item a year ago in Medical Corps Sr Leadership, but haven't heard anything in over a year.
1170	Baldrige site visit, competition for awards. I'm afraid the support of leadership is not there to break up the organizations above the local level. ABC lays costs out for you in black and white.
1170	Confusion, need one sr leader champion
1170	Confusion, not sure who is the champion at MACOM HQ, locally, we don't go unless asked
1170	Knows another MACOM has ABC as one of their leadership initiatives. Knows of nothing happening in TRADOC. Someone else at Ft Lee may know.
1170	New management, new priorities, previous efforts shelved for now
1170	We felt force-fed. Our ABC system was done without our inputs and needs considered.
1180	WE ARE JUST IN THE PRELIMINARY PHASE OF A SERVICE-BASED COSTING EXERCISE. OUR LEADERSHIP IS INTERESTED IN LOOKING AT COMPARABLE NUMBERS FROM OTHER INSTALLATIONS TO IDENTIFY POTENTIAL EFFICIENCIES/INEFFICIENCIES.
1180	"INSCOM has not been, specifically, involved with ABC. We know AMC is."
1180	Management put his name on the CEAC ABC mailing list to keep current of what's happening. CDR wants to keep up to date, meantime waiting to see.
1180	We take our instructions about ABC from higher HQ, they are watching closely the XVIII AC to see how the dust settles there
1190	I regret to inform you that at our level we do not get involved with Activity Based Costing. I'm not too sure of which DFAS-IN office would be involved in Activity-Based Accounting.
1190	Knows of no activity or SME using ABC
1190	Little or none, used civilian contractors Unit Cost Analysis System for the ARNG
1190	Nobody in his chain of command is using ABC
1190	None
1190	None
1190	None
1190	None
1190	None I know of
1190	None that he knew of
1190	None, does not seem to apply to research labs
1190	POC has no knowledge of ABC at Ft Benning
1190	They have no plans of implementing ABC or other cost accounting tool
1190	Unknown
1910	ABC, from our perspective would have to come from a groundswell, based on solid training and a desire on the part of financial mgmt types to use better tools.



Code	Variable 4 - Continued Management or Leadership Involvement
1910	Completed the ABC study for the Watervliet Arsenal in A994, one of several ABC studies done by Cost Technology for the US Army
1910	Historically, commanders have been very supportive of ABC, the normal way of doing business
1910	On the ABC Team at Fort Bragg, still in Sole Source Selection Board (SSEB) / Contract talks, A large buy coming
1950	Considered ABC a Comptroller Function in the command
1950	Considered ABC an Internal Review function
1950	Thought ABC was a budget function, "no one in the budget area knew how they could help you."
1990	Doing local costing, based on labor rates in Korea, foreign exchange rate

Code	Variable 5 Actions Promoting ABC
1110	Favorable HQ response, support
1110	Installation of a Working Group, has charter from HQ AMC to get working on ABC
1110	MACOM CG Initiatives
1110	Need to justify existence and the threat that we were to compete with commercial providers (we never went pure ABC as you defined it, but many of the principles are the same)
1110	The overwhelming need to control cost within the MACOM
1120	All funds received on reimbursable orders... overheads are distributed on predetermined rates ...
1120	Although we provide input to accounting system changes, final acceptance of ABC methods is at the Major Command and DA level. There is a major drive by Def Acct Service to standardized all accounting systems within DOD.
1120	DBOF resourcing, and the need to know real costs
1120	Finding true costs and finding out what activities add value. (an what doesn't)
1120	Need for accurate costing data to make important decisions. "It may be a bit dramatic to say that military medicine, as we know it, will live or die on MEPRS data"
1120	Need for true costs, local commanders are subject to Korean Labor Law with prices growing at over 10% annually. Need to get a handle on things
1120	Standard procedures for doing generic cost analysis
1130	Being able to get access to the senior leadership to brief a good idea, Corps OK
1130	Command directed, no options.
1130	Command Directive and resourcing the project
1130	Command Driven
1130	Enthusiastic Support from chain of command has made it happen. Leadership commitment and functional champions has made it work.
1130	For this pilot program, mgt and leadership within G4/Directorate of Logistics (DOL) and the Maint. Div. has been most effective and both have been heavily involved. This is vital if ABC is to become effective and properly used and maintained.
1130	Good business sense by leadership
1130	Leadership support
1130	Results had big part of decision making
1130	There is no doubt senior leadership in the Financial Management community is convinced of ABC's value. We have a clear charter to do what needs to be done to make it happen.
1140	AAA is involved with ABC at Ft Wood, our POC for ABC is Ms Jones
1140	AAA support and workshops, the last workshop ended with the solidification of an Installation Costing Plan which would provide a "map" for Army to get the show on the road.
1140	Commitment to early decisions, having support centers like FORSCOM's Arroyo Center
1140	Internal Review Involvement
1140	TQM and the Natl Performance Review
1150	TOO EARLY TO TALK ABOUT ACCEPTANCE. NEED GREATER UNDERSTANDING/EXPERIENCE IN WORKING WITH ABC.
1150	Mindset change from out of the non-profit to profit paradigm would help.
1150	we are not fully implemented; preliminary results promoted positive responses.

Code	Variable 5 - Continued    Actions Promoting ABC
1170	
1180	Other success stories
1180	To get training
1190	None
1190	None, would not fit here
1190	Self starter, leadership was not involved in this ABC effort
1190	The initiative of the DRM got it started, but it is languishing at best and needs further pushing.
1190	

Code	Variable 6 Performance Measures
1110	As determined by Functional Working Group (FWG)
1110	Customer Oriented, not self oriented
1110	Had Costing Pam, had metrics identified
1120	Competitive rates
1120	Contract Performance Measurements
1120	Cost per capita for services, allocation of fixed costs
1130	Determining the cost for a service, see how it compares to profit organizations, and see if management can use the information to become viable.
1130	Finding the cost of excess capacity, the cost of doing business with the government, and product costing
1130	Finding the real costs: ...The general public would revolt if they knew the true cost of military child care. Most cmdrs know that the program costs a lot of money but they have no idea what it really costs when all overhead/non-direct support /other cmd
1130	General acceptance internally and externally to the corps.
1130	Improving quality of life programs, plus a \$200K savings identified
1130	
1130	We are still in the early stages.. gathering process, product and customer information. We already has unit cost information available to us... Enthusiastically pursuing identification of non-value added processes and better business management
1140	The big success is to change the way service managers look at their costs
1140	The secret to making this work is reforming the financial policy and financial systems to allow the ABC data to be useful and properly bill the benefiting customer.
1140	To early to measure, but having a significant resource commitment is an evidence of ABC concepts being fully endorsed.
1140	Too early to tell, all our surveys say we will be successful, but still haven't seen tangible evidence
1140	We are finding true costs, and correcting past problems in accounting
1150	Findings were used for the most part as support for downsizing decisions
1150	the amount of money saved is a command directed priority, has to be documented
1160	None
1160	none given, only negatives
1160	None yet, but we expect to use ABC as a common denominator in comparing our performance with similar organizations.
1950	I guess what we have wouldn't qualify under your definition of ABC
1950	Teamwork!
1990	Ownership of data, user input in the selection of metrics, No evidence of success yet, but expectations are high,

Code	Variable 7 Effectiveness / Efficiency
1110	Effective: getting the return on investment to institutionalize SBC/ABC, produce the savings the Army needs to remain viable or competitive
1110	Must support the soldier
1110	Only if the customer benefits
1110	savings is the proxy effectiveness and efficiency
1110	This is expected to be very effective in the id of real costs
1120	Very effective, used by commanders to take action
1120	Very effective, we know true costs
1120	We found out we are not comparable to CONUS rates, we have little to compare our rates too
1160	"I can envision the day when all attendees at meetings and conferences swipe their cards as they enter and exit. Imagine capturing the costs of high-level meetings." (That would kill ABC in it's tracks, implied)
1160	Bad news is sometimes politically distasteful. Finding true costs can hurt!
1160	Effectiveness has not been measurable because the ABC reports are still nice to know data, not management data
1160	HQ logic fails at the user level. We have band-aided to try to make them responsive to user needs and preferences. Then the field tech has to placate the customer and try to paddle the conoe upstream with a toothpick to get the system to do what it ...
1160	The costing environment was too unstable to ever to get a good answer that was good for over a week.
1160	The most efficient concept is the one that is being eliminated--give an entire mission area to one provider and give the resources to perform that missions.. Everyone who needs the service within an area is provided the service. Accountability is now be
1170	Bad data kills effectiveness and efficiency. The best software in the world is useless unless data is collected and entered consistently.
1170	Neither is achieved if you can't get the data. Bridges have to be built between DFAS and cost accountants
1170	
1180	Be careful of the "snake oil" being sold by the CPA Consulting firms. The secret to making this work is reforming the financial policy and financial systems to allow the ABC data to be useful and properly bill the benefiting customer.
1180	Lots of promises for study authors who just happen to have products to sell us
1180	What works in a for-profit arena is a money sump in the government
1190	Early stages: too early to tell
1190	Too early to tell
1190	Too early to tell
1910	A number of "Success Stories" ABC related but not really ABC specific
1950	Mgmt has applauded our efforts, encourages to keep up the good work

Code	Variable 8 Fertile Ground
1110	WE JUST GOT OUR FEET WET IN WORKING WITH OUR BASE OPERATIONS BUDGET. WE NEED TO DO MORE WORK IN THIS AREA BEFORE WE EXPLORE NEW APPLICATIONS. ONE POTENTIAL FUTURE CANDIDATE MIGHT BE OUR AUTOMATION BUDGET/FUNCTIONS.
1110	Base operations areas and the cost of supporting tenants at an installation. W/O question, this is the 1st place to go and needs done so we do away with this incremental funding concept in ISSAs.
1110	Base Operations (BASOPS)
1110	BASOPS and Operations Tempo (OPTEMPO)
1110	BASOPS is one of the areas
1110	Cmd desire to expand to 1st and 3rd Corps, Focus is on installation management to meet the needs of the post MACOM tenants
1110	Directorates of Community Activities
1110	FORSCOM division installations, especially in the Directorates of Public Works and Logistics
1110	Garrison activities
1110	Garrison activities first, belief there is applicability on the TOE side of the house.
1110	Installation Process Costing
1110	Maybe Director of Public works (DPW), but not here
1110	Quality of Life Support Services
1110	Service Orgs
1120	Ceremonial Support, Contingency Operations, BASOPS all are candidates
1120	Corps of engineers District, full service
1120	during IDEF studies
1120	Program and Budget-formulation & execution
1120	TOE units
1130	Armaments, munitions, Chemicals, Industrial Ops
1130	DS/GS Maintenance
1130	Maintenance of Tracked vehicles
1130	More likely Depot Maintenance, Munitions production, or similar functions would be better suited to ABC than medical
1130	Proving grounds are excellent ABC locations
1150	Many areas, Hospitals, Military Child Care, all areas Baldrige looks at
1150	Medical Medicine
1150	Medical Services
1150	N/A at this time, outside this agency, we see health care to military beneficiaries as a major opportunity
1160	Course Costing, Medical School
1160	
1160	In both Supply & Service and Transportation Divs of G4/DOL. Next, in Armor School.
1160	Training cost & then Base operations
1180	Unknown: We would be looking for the best ratio of expected benefits to expected cost / difficulty. Given unlimited dollars and time, would still take that approach. After the lowest fruit is picked, would go after the more difficult / less promising area

Code	Variable 8 - Continued Fertile Ground
1180	Would apply ABC to use of all resources after adequate analysis, to mgmt decisions--where to relocate staff, where productivity can be improved, where costs are too high, whether to continue spt non-value added activities, how to control pool costs
1190	Not Foreign Military Sales
1190	Other services other than BASOPS
1190	Under our current mode of operation, it would be difficult to apply ABC principles to other areas.
1190	unknown
1910	Doesn't apply, our MACOM is being shut down and absorbed by FORSCOM
1950	
1950	So many opportunities, our service directorates
1950	we will see
1990	Did not say couldn't be used there

Code	Variable 9 Catalysis for ABC Growth and Use
1110	An analysis of 1 office in our cmd was all it took for the cmd to recognize ABC as a positive mgmt tool to use in performance measurement reporting
1110	Good leadership can make this work, but the demands of so many other issues dwarf ABC and push it to the back burner. ...successfully operating and building on the examples of other successful ABC
1110	In our case, the cmdrs desire to reap the benefits that come from becoming competitive
1110	Leadership enthusiasm and involvement.
1110	Leadership support
1110	Need a command champion, right now the principles are playing tag (paraphrase)
1110	our accounting procedures are mostly Command Directive
1120	I'D LIKE TO HEAR ABOUT APPLICATIONS AT OTHER SITES, SUCCESS STORIES AND LESSONS LEARNED.
1120	case studies demonstrating success in our business area.
1120	Keep me informed on your efforts: need for knowing what DA & CEAC are up to
1120	More info disseminated over time. It takes time for people/office to process/evaluate/internalize new info.
1120	
1120	Perception in the field that DA is really there to help them, communication is key. We have a staff of 12 on the road working very hard to promote ABC, and the actions of these "consultants" speak louder than sending out policy documents.
1120	Published Results!, we want to see success stories elsewhere first
1130	Better alignment of our financial mgt system to support process mgt and activity mgt would help convert skeptics and cynics to enthusiastic supporters.
1130	Currently I am enthusiastic about the eventual impl of ABC at Dix. However, there are many practical problems to be solved during the XViii AC impl. If it turns out tat the current Army Financial systems will not support ABC, or ABC is too expensive, I cou
1130	DOD Cost Accounting System, A change in DOD Reimbursable Policy
1130	IMPLEMENTATION OF A GOOD COST ACCOUNTING SYSTEM. WITHOUT ONE ABC BECOMES VERY LABOR INTENSIVE.
1130	Note: Army Corps of Engineering (ACE) has own accounting needs, their cost accounting system is tailored to their needs, works very well. Many Congressional interest items.
1140	More training
1140	Support agencies like AAA, use of the WWW to find out information. CEAC involvement with ABC. One of our implementation objectives was to establish an Army AC home page on the net. NASA has a great site concerning ABC
1140	Training & The possibility of another "S/W Package" designed to even further assist managers more in-depth than ABC. The key to ABC, in my opinion, is the output provided is only as good as the input into ABC. The more detailed, the more useful.
1160	Declining resources are a major concern
1160	The overwhelming need to control cost within the MACOM
1170	Disciplined Cost Accounting, Do not manage by buzz-word



Code	Variable 9 - Continued    Catalysis for ABC Growth and Use
1170	We need the leaders to re-buy into ABC, it was hot, now it's frozen
1180	
1180	One size doesn't fit all. The generic "HQ minded" system should have considered the needs of those who it was intended to help.
1950	Don't know
1950	None here
1950	Unknown

Code	Variable 10 Reasons Not to Implement ABC
1110	"Wait and See" is often more prudent than "proactive and burned", (2nd email)
1110	Discouraging reports from DOD about changes in BASOPS costing policy. The rumors we have heard would negate all the work we've put into the five ABC test areas
1110	Just started considering how ABC could apply to our operations.
1110	Waiting to see results
1120	
1120	Inadequate because reports are not formatted for ease of use, do not contain user-needed information, decisions cannot be made from the reports without looking at additional information outside the system.
1120	Under our current mode of operation, it would be difficult to apply ABC principles to other areas.
1130	ABC is just unknown
1130	Because ABC is relatively an unknown accounting tool
1130	Fingerpointing. without acctng tools and an acctng system, we would only spend money and blame others.
1130	Lack of finding anybody in the Army actually using ABC. Studies promise, and there are lots of them, but they have not found anybody who is actually using ABC that has a success story to tell.
1130	Not sure what it was
1130	The accounting system and disciplines are not there.
1140	If publishing our rates get's attention by those not familiar with Korea, we can be a risk
1140	Instability in mission
1140	It was worthy of resources, but ...
1140	Many man-hours are required to maintain costs and bill multiple customers. Misspent money: training of soldiers and maintaining our defense should be priority.
1140	We have too many studies saying ABC is a good idea. If sr. leadership does not support, we would have to do other priorities
1150	The existing MEPRS system is a major barrier to ABC implementation
1160	ABC was the cost accounting tool of choice by the CG, only the traditional accounting methods were in place before the CG directive
1160	Change from the status quo, Standard Industrial Fund System (SIFS) is answering the mail.
1160	Too much instability in command structure, continually reorganizing
1170	AFTER 1 SEP 96 WE LOSE ALL DBOF RESPONSIBILITIES
1170	Does not seem to apply to our needs
1170	Not in our mission requirements
1170	Small shop, I have all the detail I need to make prudent decisions with respect to real costs.
1170	The benefits of ABC are inconsistent with the goals of our organization
1170	too new of a command

Code	Variable 10 - Continued	Reasons Not to Implement ABC
1170	Where mission does not fit ABC uses, the actual combat units	
1170	Would Not, does not apply in our business area	
1180	(Long Term) Big brother issues, ABC used as a tool to gather information to determine job performance and personnel decisions, travel, purchases...	
1180	ABC in this case was not used for forward looking, but how to answer current questions	
1180	Political fallout, if the public knew how much we are spending on certain things....	
1180	Program and Budget-formulation & execution	
1190	Reorganization, the clerk who did data entry didn't make the RIF, no replacement	
1190	Time, results are not immediate	
1190	Until the Army Financial Systems support ABC, ABC would be too costly	
1910	Mgmt was not a large participant, excitement was generated from below. ABC seemed to be a management tool tailor fit to our needs, we ran with it after a preliminary study showed much promise	
1910	We have had applying ABC in their office cost accounting for a number of years. Things seem to be adequate,	
1950	Does not apply, ABC is the way to go.	
1950		
1950	The decision has been made to use ABC, so questions does not apply.	
1950	We are fully implemented.	

Code	Variable 11 Substitute Methodology
1110	Reimbursable systems
1110	
1110	SIFS system
1110	The only standardized costing system fielded is MEPRS, which uses double step-down cost acctng to cost center level, but fails to capture any costs at all product levels. With such rudimentary raw data, implementation of ABC would require data & mapping
1120	Going toward Fee for Service (FFS) made us use ABC principles.
1130	Traditional Accounting
1130	Traditional Accounting takes care of all our needs
1150	Just started considering how ABC could apply to our operations.
1150	unknown at this time
1950	Does not apply.
1950	Let accounting take back seat to mission

Code	Variable 12 Problems Which ABC Did Not Cure
1110	ABC + traditional paradigms = disaster. Current bill paying, Max obligation rate thinking has to go.
1110	We are concerned management will want more detailed information.
1120	Cost Accounting and Federal Accounting not integrated.
1130	Financial Mgt Systems
1130	we're only doing ABC within the GAE area. To expand the concept to mission costing would require major changes with the SIFS system and it depend on many other factors, such as method of workloading by the major commands we serve, compliance with Army...
1150	ABC does not apply to decision making that has little regard for costs
1150	Did not keep commander's attention,
1150	Lack of success stories is a big clue it isn't so hot
1150	Most importantly, the tool needs to be used by top leadership (Secretaries and Congress) to break up useless stove-pipes and other organizations that add value, but cost way too much for the return provided (i.e., Military Child Care)
1160	ABC may be perceived for more than it is.
1160	Instability
1160	Quality and Customer support is dead in DOD.
1170	Cost of a stand alone ABC systems would be prohibitive
1170	
1170	Same ones Fee For Service didn't solve
1170	Seems so data intense
1170	Very labor intensive when data cannot be gleaned automatically
1190	No inadequacies identified at this time. Too little implemented to evaluate properly.
1190	none found yet, still implementing.
1190	Too soon to tell.
1910	Not a lot of knowledge about ABC within the command. If success stories abounded, then there wouldn't be much trouble getting an ABC solution adopted.
1950	
1950	I don't think our ABC is really ABC.

Code	Variable 13 Motivation
1112	/ / Process Improvement / Budgeting
1113	Product Costing, Perf Measurement, Cost Reduction: Measurement units cost id, and related allocation, controllable vs. uncontrollable costs for a manager
1114	/ Product Costing / Process Improvement / Budgeting / Performance Measurement / / / / /
1114	Product Costing, Budgeting, Cost Reduction, Command Directive (Congressional interest in COE projects and their true costs)
1116	Improvements in / Process Improvement / / Performance Measurement / / Downsizing / Business Process Re-Engineering / / Benchmarking /
1117	/ Product Costing / Process Improvement / / Performance Measurement / / / Business Process Re-Engineering / Command Directive / Benchmarking /
1118	/ Product Costing / Process Improvement / Budgeting / Performance Measurement / Cost Reduction / / Business Process Re-Engineering / Command Directive / Benchmarking /
1118	Everything but product costing
1120	/ Product Costing / Process Improvement / / Performance Measurement / / / / / Benchmarking / Other: Unit cost db for business areas within the USPFO
1120	Already \$300K in tangible benefits have been realized, many intangibles being achieved. Specific areas of concern are Process Improvement, Budgeting , Performance measurement, Downsizing Drills, and Business Process Re-Engineering.
1120	Baldrige Award Competition, general duties as an investigator / auditor
1120	Finding places to save money (live within budget cuts)
1120	For decision making purposes.
1120	Knowing True Costs, basis for fair billing
1120	Little, except for cases where there is obvious application. Since 80% of the function was reimbursable, ABC was the result of necessity.
1120	Motivation not the problem!, it can be applied in many places well
1120	Need to become competitive with commercial providers
1120	Need to get a handle on costs
1120	Need to identify non-value added activities, improvement of operations
1120	Needed equitable data for justification for tough decisions
1120	Requirement to do a review, cmd & IR teamed up to apply ABC principles
1120	Wants to be on top of the cost of services
1130	Cmd Directive
1130	Command Directed
1130	Command Directive
1130	Command Directive and Benchmarking costs
1130	Command Involvement
1130	Curiosity, being prepared, ABC sounds like it could help us understand costs, --knowing that ABC is a "hot topic" in some places (other than here)
1130	Enthusiastic, will embrace when told to,

Code	Variable 13 - Continued Motivation
1130	I am presently writing up a paper with recommendations and a tentative implementation plan
1130	If we see ABC rolling with enough inertia, we will get ahead of the steamroller, if one ever comes (2nd email)
1130	The CG and key magmt personnel realized the need for change in the way we currently do business.
1140	ABC makes sense in our business area
1140	Mr. Brimson (author of :Activity-Based Management) and a COL(ret) are working for the Army Surgeon General. They may have a factor in changing from the status quo
1150	ABC is not in our plans. I cannot see it paying for itself.
1150	Frankly, I have no knowledge of the ABC project. I do not know what I can contribute, but if you care to call, I do not mind. My telephone number is
1150	No interest
1150	no motivation
1150	None
1150	none
1150	None
1150	
1160	Budget Cuts killed off some efforts
1160	
1160	Gone
1160	Other irons in the fire
1190	At this point, survey respondent stopped answering questions.....

Code	Variable 14 Captured Data
1110	BASOPS (DOL, DOC, CPO, SJA, and IRAC)
1110	Direct and Fixed Costs, figuring out the best way to allocate fixed costs
1110	Installation Processing Costs
1110	O&M Costs, CPO costs, DEH costs of activities required to support the activity
1110	True costs of operations, previous undivided overhead pools
1110	Very Detailed list of costing metrics, but not ABC
1120	Contract Performance Data
1120	DS/GS Maintenance Stats
1120	Logistic primarily
1120	Logistics
1120	Med stats from case management files
1120	Medical Data
1120	Our previous models had connect time, etc. as a basis to bill, just like AT&T
1120	So many items, each Directorate was allowed to choose as many or few as they deemed necessary (3-10). Manageable numbers with user buy-in
1130	"IR identified direct and indirect costs for each section in DCA, numbers of users/participants for each activity with the DCA,
1130	All activities have a 15 digit "workcode" established for costing purposes. Within a particular civil design project, workcodes are established for each specific Activity, base on prescribed formats.
1130	Computer stats and "help desk" activities
1130	Installation activity data
1130	
1130	overhead / non direct support / other command support (health services). Cost per seat is so high that we could save tons of money and still provide the best care on the planet.
1130	Standardized methods to distribute operating support cost to benefiting activities.
1140	As per storyboards
1140	Finding the cost of excess capacity, the cost of doing business with the government, and product costing
1150	If management isn't going to use it, all of metrics will be captured for naught.
1150	None
1150	unknown



Code	Variable 15 Excluded Costs
1110	Medical Execution, Planning, and Resource System (MEPRS) is cost accounting, but does not tract to the activity level
1110	The standard metric to use: diplomas, students enrolled...
1150	none
1150	unknown

Code	Variable 16 Allocated Costs
1110	Both direct and indirect
1110	Costs of layered supervision
1120	Labor, Supplies, Contracts purchased from Korea
1120	O&M Costs, CPO costs, DEH costs of activities required to support the activity
1150	unknown

Code	Variable 17 Software
1110	Good s/w - in our case, s/w from ABC Technologies, Inc. Other needed - appealing and clear training materials
1110	Our contractor, MPRI provided the tools.
1120	DFAS has ABBCM, Activity Based Budgeting, Costing, and Management. Army has Installation Process Costing SW
1120	DOD has a sw program for Business Process Re-Engineering (BPR) called TurboBPR in which ABC is utilized
1120	Local PC software
1120	Locally built
1120	Mainframe suite of system utilization
1120	MEA Provided
1120	Note: I think COE has a stovepipe system tailored to their needs
1120	PC software
1120	SIFS
1120	Standard PC software (EXCEL) using inputs from the STANFINS data
1120	unknown, used PC tools
1120	We are working on custom software to answer our challenges.
1120	We have no tools. At this time we have Lotus spreadsheets and basic concepts.
1130	actual expense budget reports, USAFISA manpower study task listings, EXCEL and VISIO programs, and MIPR records
1130	Borrowed from other installations, used same contractors where successes had been achieved
1130	Easy ABC Plus & MS Office Suite
1130	Local, some consultant provided
1130	Only thing we have is "easy ABC". We have not reach modeling phase yet. Storyboards have been accomplished at a number of sites as a precursor to ABC modeling
1140	A DOD wide software solution is required.
1140	Tools are cost and performance data required for management of Army facilities.
1140	What others use
1150	Commercially Available Software is a big issue being debated, especially when buys cover purchases for whole MACOMs
1150	Generic software is woefully inadequate.
1150	Not COTS
1190	None
1190	None, all big stuff

Code	Variable 18 Development Tools
1110	EXCEL
1110	Good s/w - in our case, s/w from ABC Technologies, Inc. Other needed - appealing and clear training materials
1110	MEPRS is the standard cost accounting software of military medical providers for Army, Air Force, and Navy
1110	MEPRS, a sw system for tracking medical services costs
1110	SIFS Systems
1110	Supposedly TurboBPR can be downloaded from the WWW, we tried to but was no successful. Tel: 1-800-TELL CIM, osd Home Page on the www a <a href="http://www.dtic.dla.mil:80/c3i/">http://www.dtic.dla.mil:80/c3i/</a>
1120	Mainframe Programming, working on a S/W interface to make ABC data easy to access.
1120	MEA Provided
1120	Storyboards, PC software
1120	We contracted with the Office of Economic and Manpower Analysis (OEMA) at West Point to build us a model, which was called the Budget-Based Analysis, Europe (BBAE)
1120	We have no tools. At this time we have Lotus spreadsheets and basic concepts.
1130	Combination of COTS and standard PC software
1130	They didn't say on survey, but from the site visit they told me it was army owned software...and then got a consultant's software. (trying to remember the name (DSR note)
1140	The key tool most beneficial in development of ABC was the contractor and the team that worked with us. Next, the desire, participation, and cooperation from Maint. Div. personnel.
1150	We are leery of contractors that sell you half a product. Get you hooked just to find out to get the sw you really need, bring bucks
1190	N/A was the given answer
1190	Seems that Development predates survey respondent
1190	The software received was built with HQ logic. I have major concern with any new initiatives, "real systems" designed and programmed for the managers and other users. Too often we are required to use systems that were not well considered when built.
1190	unknown
1990	actual expense budget reports, USAFISA manpower study task listings, EXCEL and VISIO programs, and MIPR records
1990	Baldrige Award criteria
1990	DFAS has ABBCM, Activity Based Budgeting, Costing, and Management. Army has Installation Process Costing SW

Code	Variable 19 Useful Features
1110	Automated input into databases for analysis
1120	Costs in terms of square feet or population
1120	Custom Reports
1120	Give management "what happened" reports
1120	Identification of non-value added activities
1120	If we had one...allow the ABC data to be useful and properly bill the benefiting customer
1120	Knowing true costs
1120	True cost reports
1130	15 digit workcode for Activity tracking
1150	kills lots of trees (from phone conversation), but managers place ABC behind all the other priorities nipping at them.
1150	Looking for the proof in the puddin'
1150	Too early to tell

Code	Variable 20 Less Useful Features
1110	Cannot answer our management's' needs without looking outside our ABC system for additional information.
1110	Level of detail may be inadequate, management is expecting a lot for it.
1150	too early to tell
1150	Too early to tell, only 2% implemented

Code	Variable 21 Benefits
1110	Credible documentation to justify cuts
1110	Identification of real operational costs, basis for making decisions on reducing operating costs. Places where revenues could be increased were identified
1120	Building the Unit cost database for business areas within the USPFO
1120	Knowing real costs, having data to support Labor negotiations and Contracting for services
1120	Knowing the true costs!!!!
1120	measurement units, cost identification and related allocation, controllable vs. uncontrollable costs for a manager
1120	Tracking of all costs, down to district and technical levels, reporting to all levels of management
1120	Understanding true costs
1120	Understanding true costs
1130	Cost Awareness has increased, but please ask us again in 6 months
1130	Many reports have come in from the field demonstrating proof of principle, hard savings, and many intangible benefits.
1130	Very few. Our ability to implement is hindered from many different ways, but the greatest benefit has been an understanding of the underlying cost structure.
1130	Very Large paybacks already. Tangible approx \$300,000(we are in initial stages of implementation) Intangible-better understanding of our processes
1140	The ability to use pro-rata estimates and other standardized methods to distribute operating support cost to benefiting activities.
1150	Being currently implemented, none to date has been documented
1150	None yet
1150	Only thing we have is "easy ABC". We have not reach modeling phase yet. Storyboards have been accomplished at a number of sites as a precursor to ABC modeling
1150	Still in test mode
1150	Time will tell, too knew at this.
1150	we have only had ABC in use since Apr 96. We have not experienced any benefits yet due to we are still learning its use and capabilities. We feel we need 1 full year of data, accurate data, before we can begin using it in achieving the results...
1190	More programs (with less resources) has caused the quality to suffer. The quality of financial and accounting support has taken a nose dive and I don't think any customer would dispute that. ABC helps us to determine reimbursable amounts, a flawed concept
1190	none mentioned
1190	We don't do ABC

Code	Variable 22 Difficult Costs
1110	Base Operations !!!
1110	BASOPS and supplies
1110	supplies--the entire command charges to one account, and incorrect cost accounting entries have made accurate activity charging difficult
1110	Transportation Cost for items shipped from CONUS
1120	models are in progress of being costed; anticipate contract costs.
1130	Charging base operation support costs to specific activity as directly benefiting is difficult and not cost efficient. It can only be reasonably measured using pro-rata estimates and other techniques.
1130	With such rudimentary raw data from MEPRS, implementation of ABC would require not only the usual activity mapping and software to accommodate the tracing to the activities, but also a complex cost data capture system to replace the existing one.
1140	WE HAVE LIMITED IT TO OUR BASE OPERATIONS BUDGET. THERE SEEMS TO BE A PROBLEM IN DEVELOPING CONSISTENT WORKLOAD COUNTS TO COMPARE OURSELVES WITH LIKE INSTALLATIONS.
1140	Difficult because the elephants we were measuring kept stampeding.(paraphrase)
1140	FY92 was the last "full up" year in USAREUR, data after that was very difficult to normalize because of all the downsizing & reorganization.
1150	G&A
1150	G&A, (OH) and Indirect
1150	Indirect labor costs for support personnel. Examples being supply and production control personnel, admin. support, etc. Also, labor costs that would only apply to certain work centers and not apply to the entire workforce.
1150	Overhead, especially the costs for services outside our MACOM (health services)
1160	Political
1170	Surge capacity (I think this is what he said)
1180	All costs are available within the systems, ways have been found to track difficult costs. Policies in how to select and format activities have predetermined formats for ease in future tracking. Bugs have been worked out, those tracking costs we involved
1180	Tracing costs is not difficult-measuring is



Code	Variable 23 Types of Reports
1110	"what really happened" reports
1110	Cost Management reports,
1110	Cost of doing business, BASOP and Quality of Life activities
1110	Custom Managerial
1110	Managerial
1110	Understanding Real Costs, Other intangibles very important
1110	We have customized our reports for our users. The ability to customize is key for management use.
1120	All levels of management get the reports, and from all indications these reports are very useful to them.
1120	Audit and Investigation reporting
1120	Managerial, for this HQ and higher HQ
1130	measurement units, cost identification and related allocation, controllable vs. uncontrollable costs for a manager
1130	Reimbursable billing justification
1130	Unit cost database for business areas within the USPFO
1140	Studies from contractors concerning commanders informational needs
1150	Management has to help design the reports they want. If they don't understand them, they won't use them.
1150	Need to modify reports to meet managers needs, the current reports are not gaining their attention.
1150	Very Few, we need to continue to educate ldrs on the underlying cost structure. ABC is a way to get there.
1160	none yet, still in preliminary phase of implementation
1160	please, ask again in 6 months
1160	Too early to tell

Code	Variable 24 Report Users
1110	Our own staff, and management
1110	Too much instability to publish findings, Operations received some interesting tidbits, like our e-mail servers couldn't justify a GS-11 systems administrator unless they had like 130 users. That number changed too....
1120	Directorate Managers
1120	District and Technical (Engineering)
1120	Management
1120	Management
1120	Management, Accounting folks
1120	Management, without doubt
1120	Managers
1120	Managers who make critical decisions.
1120	Test managers.
1130	Commanders and Directors
1130	Commanders, and eventually DOD & Congress (kasern closure authorities)
1130	Garrison Managers and Senior Leadership
1130	High level commanders
1990	

Code	Variable 25 Course Work
1110	All of our training was provided by the contractor, MPRI. It was all on-the-job training. I'm not aware of any courses except whomever needs to be trained in computer literacy to the degree they can use a PC with use.
1110	OJT training will be good when completed by contractor
1110	We received a users guide that we used
1120	3 day class offered by the Army Mgmt Engineering College. Other than that, I know of no other training
1120	We don't conduct formal training on ABC as we practice it. Mostly employees learn through OJT.
1120	A principles course should be open to all offices. It could be offered once a year. Organizations would determine how much emphasis to place on ABC by determining how many people should attend class.
1120	ABC overviews, Unit cost principles, etc.
1120	General ABC concepts for Execs and mgrs, plus training on concepts, applications, and software usage for users.
1120	HAVE HAD EXPOSURE LEVEL TRAINING. DON'T FORESEE AN ADDITIONAL REQUIREMENT BASED ON NEW COMMAND MISSION UNDER FORSCOM
1120	Managerial, for this HQ and higher HQ
1120	We are uncomfortable with conflicting definitions of ABC. Need clarification courses
1120	We teach the introductory course to all in the agency we are assisting, have to have universal buy-in
1120	There is no training, all need some if we went to an ABC cost accounting system, most of my staff has business degrees, so form basic to advanced would be needed.
1120	Unable to judge since I attended only two different classes, and not all that are available. The PM needs more in depth training in principles and Apps that the rest of the staff working ABC . Experience will be the best teacher
1120	Management Concepts has taught several courses to Natick employees
1130	Additional training is always welcome & needed since full ABC implementation, to include the performance aspect, has a steep learning curve
1140	Once the go ahead is given to implement ABC, I would estimate that we would need at least 41 person weeks of training. tng would consist of 30 people for a 3.5 day course, + a 1 day familiarization for 100 people ... "Critical Mass"
1140	None, our staff is fully trained, we teach others
1140	ABC is not new to us, all in the office are fully trained
1140	Moderately comfortable. We sponsor a 1 week course form Army Management Eng College last year and have had 3 studies completed in support areas. However, since financial systems don't support ABC, we can't fully implement.
1150	None
1150	Not at all, once you described it
1150	
1150	Need wide variety of training.
1150	no training at this time
1150	No training in ABC, not comfortable

Code	Variable 25 - Continued Course Work
1150	We have no training (prior, current or planned)
1150	WE HAVEN'T HAD ABC TRAINING AND I'M NOT FAMILIAR WITH WHAT COURSES ARE OFFERED.
1150	Don't know yet, but will have to find out. Please Help
1150	
1150	
1150	Not sure, but we need something

Code	Variable 26 Training Status
1110	ZERO
1110	No ABC training currently going on.
1110	No training in place
1110	None
1110	None
1110	None
1110	Very Little
1110	Very Uncomfortable
1110	
1110	
1110	
1120	NOT VERY....OTHER THAN WHAT LITTLE WORK WE HAVE DONE WITH SERVICE BASED COSTING, I DON'T CLAIM TO KNOW MUCH ABOUT ABC AND POTENTIAL APPLICATIONS.
1120	1 week course form Army Management Eng College last year
1120	No training has been received other than what they came here with
1120	Not comfortable
1120	Not comfortable. We need more training. - ?? two weeks maybe
1120	Uncomfortable
1120	Uncomfortable, about 2 weeks should be sufficient to get us going
1120	What is normally found in a RM, many people have degrees in business admin.
1130	At least a weeks worth of ABC is training for those involved.
1130	Contractor provided, 3 weeks more formal education still needed by users.
1130	fairly, need more
1130	Limited training. Most understand basics.
1130	Maintenance Division is currently the only division within the G4/DOL to have ABC in use. Only Maintenance Div personnel have received the proper ABC training.
1130	Need more, at least one week per
1130	unknown at present-however, anticipate a need to train 20% of the organization, including executives, middle managers, and future users.
1130	very comfortable with current status, but could use about 8 weeks more
1140	All very well trained in ABC, both in classwork and on the job
1140	Lots of workshops custom fit to our needs. Feel very good about this
1140	None, our staff is fully trained, we teach others
1140	Very well trained
1140	We do our own, help from consultants
1150	Given the length of time until USARC give the go-ahead for implementation , training is not an issue at Ft Dix. In fact training at this time would be premature
1190	None, we have no intention of using ABC
1190	With the current system we are operating under, there are no training requirement at this time

Code	Variable 27 Training Methodologies
1110	Bring in DOD consultants
1110	MEA will provide training
1110	On site workshops
1110	US Army Audit Agency consultants
1110	
1120	Contractor provided to a core, core then teaches users
1120	PCE courses, otherwise none, wasting training money until DOD decides to implement in Army DBOF organizations.
1120	The only implementation currently in progress is at Picatinny. In discussions w the POC, Maj Russell, their only training has been on-site training team from their contractor.
1130	OJT exclusively
1130	OJT now, Initially, 2 weeks of training is needed, per person, for everyone who would be directly involved in the implementation of ABC. Afterwards, 2 additional weeks for the users.
1130	On-the-job
1140	Contract Instruction: ABC Technologies has numerous courses, workshops, and user conferences. Which course to attend depends the level of managers/users involved
1150	Comfortable-Training is ongoing throughout the XVIII ABN Corps. Other Corps are contemplating future training requirements.
1150	Didn't seem enough expertise internally, must seek outside providers
1150	Internal AMC trainers
1150	Local
1150	No training received, don't know what's best
1150	Would have to come from outside
1150	Would have to come from the outside
1150	Would rely of experts from the XVIII
1910	I use to be a consultant .... they have the needed Mindset
1910	We are ABC consultants to the army.

Code	Variable 28 Trainers
1110	1 week course form Army Management Eng College last year
1110	USAAA
1120	ABC Technologies is being looked at as professional instruction providers
1120	Consultants, most of our staff have business background.
1120	Contractor
1120	Didn't seem enough expertise internally, must seek outside providers
1120	Management Concepts Corp
1120	No Answer, but did state they intended to teach Execs, i.e. need professional teachers with extensive knowledge, not canned courses.
1120	Outside gov't source would be best
1120	Outside sources
1120	Would have to come from the outside
1130	DOD & AF consultants, co-located with CEAC will be useful
1130	Internal AMC trainers
1130	MEA, a division of this command
1130	On the job training
1130	On-the-job
1130	Peers
1130	We provide training for our MACOM
1140	Local
1140	Local college instructors
1150	

Code	Variable 29 Consultants
1110	ABC Technologies, but no answer is given for this specific measurement question.
1110	
1110	Cost Technology Inc.
1110	Had Management Analysis, Inc., Mclean VA look around
1110	Management Concepts Corp
1110	No Answer, but did expend approx \$3M to firm to implement, not a home grown solution
1110	Ours, MPRI, was very helpful, seems to been quite effective
1120	Arroyo Center at FORSCOM, RAND corp studies
1120	DOD, not industry
1120	Internal - MEA
1120	Internal to AMC consultants, don't trust snake oil and those who will sell you a partial solution
1120	Internal, Action officers from AAA
1120	Potential contractor and author Mr. Brimson is working with the Army Surgeon General
1120	West Point: Office of Economic and Manpower Analysis
1130	Baldrige Award team visits
1130	Local
1140	Yes
1150	We've seen and heard of a lot of them.
1190	Be careful of the "snake oil" being sold by the CPA Consulting firms. The secret to making this work is reforming the financial policy and financial systems to allow the ABC data to be useful and properly bill the benefiting customer.
1190	Every little organization is now hiring experts in environmental, safety, transportation, etc., (ABC implied) so they can understand the services they are buying. DOD is not a business and we need to come to that understanding quickly.
1190	No
1190	none
1190	None
1190	none mentioned
1190	Wasn't comfortable based on what I heard at FWG meeting
1190	We are leery of contractors that sell you half a product. Get you hooked just to find out to get the sw you really need, bring bucks
1190	Would not consider them, in-house modeling is the only option in this response
1990	Most likely source of info



Code	Variable 30 Training Material Requested
1110	A principles course should be open to all offices. It could be offered once a year. Organizations would determine how much emphasis to place on ABC by determining how many people should attend class.
1110	General courses for non-financial supervisors and technicians
1110	
1110	Introductory. Command group, Resource Mgt, and Logistics personnel
1120	All of our training was provided by the contractor, MPRI. It was all on-the-job training. I'm not aware of any courses except whomever needs to be trained in computer literacy to the degree they can use a PC with use.
1120	Basic and intermediate for ABC workers
1120	Both managers and users.
1120	from basic to advanced courses
1120	How too courses, there has been too many theory courses
1120	Maybe 3 person weeks. I've read several books on it and analyzed it.
1120	Need wide variety of training.
1130	ABC and related topics, such as Defense Financial Mgmt & budgeting
1140	WE HAVEN'T HAD ANY TRAINING IN THIS AREA SO I DON'T KNOW WHAT TO RECOMMEND. THE AMOUNT WOULD ALSO DEPEND ON THE EXTENT OF POTENTIAL ABC APPLICATIONS.
1140	Not sure what courses you mean, ABC, Unit Cost Prin, etc.
1140	Not sure, but at least one week
1140	Unable to judge since I attended only two different classes, and not all that are available. The PM needs more in depth training in principles and Apps that the rest of the staff working ABC . Experience will be the best teacher
1140	We are fully trained
1150	Course for managers and Sr Exec workshops
1160	Lot's of good material to be gained from govt sites on the internet
1160	Stuff on the DOD web sites, good sources
1170	General ABC concepts for Execs and mgrs, plus training on concepts, applications, and software usage for users.
1170	Once the go ahead is given to implement ABC, I would estimate that we would need at least 41 person weeks of training. tng would consist of 30 people for a 3.5 day course, + a 1 day familiarization for 100 people ... "Critical Mass"
1180	
1180	none
1180	none
1180	NONE AT THIS TIME
1180	None, until DOD decides to implement in Army DBOF organizations.

Code	Variable 30 - Continued Training Material Requested
1180	None, we have no intention of using ABC
1190	don't know
1190	
1190	Unknown
1190	unknown

Code	Variable 31 Target Audience (User / Management Level)
1110	ABC from Auditor's point of view
1110	ABC workers
1110	How too Course, design of ABC vs. strategic overview (that has already been accomplished)
1110	My staff
1110	Our staff first
1110	the entire population of the office we are working with
1110	Users
1120	All need training, basics first, Financial management and ORSA types should go first
1120	Financial Mgmt types first, we would be expected to be subject matter experts if ABC is implemented.
1120	General courses for non-financial supervisors and technicians
1120	I'll need it first
1120	Managers (3.5 days) & users (1 day overview)
1130	Program Leaders for sure, staff accounting
1130	Resource Managers
1130	Sr Auditor / Inspector General
1140	
1140	General ABC concepts for Execs and mgrs, plus training on concepts, applications, and software usage for users.
1140	Managers, Sr Execs, Users
1150	WE HAVEN'T HAD ABC TRAINING AND I'M NOT FAMILIAR WITH WHAT COURSES ARE OFFERED.
1150	No idea, don't know what's available.
1150	Not sure what courses you mean, ABC, Unit Cost Prin, etc.
1150	unknown
1150	
1160	Both our staff and management are comfortable, maybe if there is a large turnover of personnel...
1160	Does not apply
1160	
1160	none
1160	None
1160	We are fully trained
1950	Those Army cites considering ABC
1990	Army Management Engineering Collage (AMEC) course was good, Looked at university courses: disconnected from the reality of the field. If you want to train this effort, you need to look where it is successfully operating and build on the examples. You need to look beyond theory to ...

Code	Variable 32 Best Use of Training Dollars
1110	Basic and intermediate for ABC workers
1110	General courses for non-financial supervisors and technicians
1110	Users, but OJT environment
1120	AMC Functional Working Group for ABC implementation
1120	Managers and Users
1120	Team to come in and do the workshop
1130	Financial Management
1130	Introductory. Command group, Resource Mgt, and Logistics personnel
1130	Leadership buy-in has been identified as critical, they must understand before they buy in
1130	PMs and staff accountants
1140	Budget Officers
1150	elsewhere
1150	elsewhere, we are very comfortable with our ABC training status
1150	Until an accounting system is in place, spend training \$ elsewhere -- Return on Investment (ROI)
1150	We are fully trained
1160	Don't know
1160	
1160	To premature now
1160	unknown
1160	
1160	unknown
1160	Unknown at this time
1180	Need to have a good reason to consider ABC first
1180	None at this time
1180	Not in ABC training
1190	N/A

Code	Variable 33 Unit Category
1110	LOGISTICS, ACQUISITION, AND R&D SUPPORT FOR ARMAMENTS AND WHEELED AND TRACKED VEHICLES.
1110	Army Arsenal, ABC studies
1110	Army Depots are would benefit from ABC.
1110	
1110	DS/GS Maintenance
1110	Equipping the soldier, AMC
1110	I know of no ABC here, we are USA Missile Command. Responsive for: Research & Development, Production, Fielding, & Support of missile systems.
1110	M113 Track Vehicle Repairs, but it doesn't sound like we have ABC
1110	Our contractors (munitions, etc.) use ABC
1110	Services provided are Maintenance, Supply & Services, and Transportation and any other service that comes under the umbrella of Logistics within a TRADOC installation.
1110	TECOM,
1110	Test and Evaluation Cmd, Yuma, providing acceptance, usability, and modification testing and eval of any material deemed necessary by higher cmd.
1110	We are a separate reporting activity to HQAMC . IEA is divided into 5 teams, I'm on Industrial Base Advance Tech Team. One of the team assign projects is implementation of ABC throughout AMC. We have formed the ABC Functional Working Group
1120	MTMC provides traffic mgmt and common user Ops for the DOD, transportation engineering and integrated transportation systems development for transportation activities
1120	ARNG Comptroller
1120	Audit Agency for the Army
1120	Basically our mission is to keep resource managers and Installation Commander advised of "what happened" during a accounting period based on official accounting records and provide assistance regarding impact on program/budget execution.
1120	Computer Service Providers
1120	
1120	DFAS in support of Fort Schafter
1120	Directorate of Community Activities
1120	Hospital Services
1120	I work in FORSCOM IG Office. I conduct inspections, investigations, audits and serve as a team member on the Centurion Team. The CT is a Baldrige/APIC trained perf improv group which evals org self assessments, conducts site visits and teaches the ....
1120	PERFORM COST, ECONOMIC, AND OTHER TYPE ANALYSES FOR THE COMMAND
1120	Professional Military Education, DRM, Costing, Execution and Program Analysis
1120	Resource Manager, 19th TAACOM
1120	Responsible for Army Training, Doctrine, & Combat Developments
1120	Software development and maintenance
1130	BASOPS
1130	Combat / Kasern Commanders in Europe
1130	Garrison, but looking at TOE units as well.
1130	Installation Directorates under the post Resource Manager. (BASOPS)
1130	Installation Processing

Code	Variable 33 - Continued	Unit Category
1130	Management Studies, A-76 Commercial Activity Reviews, Manpower Controls & DOC, Internal Mgmt Controls, Train Reservists, Provide Power Projection Platform, Provide BASOPS to on and off Post customers	
1140	Corps of Engineers	
1140	Corps of engineers District, full service budget for OMA and civil works	
1150	Combat units need not apply... seem to be a bad match	
1150	MACOM HQ, MACOM Divisional Posts	
1150	US Army Forces Command-Mission is to train, mobilize, and deploy land forces worldwide, in response to contingencies and other crisis situations.	
1160	Medical & Medical Research Centers	
1160	Medical Services	
1160	Medical training and Combat Doctrine Development, but not using ABC yet	
1190	Not using	
1190	Not using ABC	
1190		

Code	Variable 34 Application Categories
1110	All aspects of Engineer Planning and Execution
1110	BASOPS
1110	BASOPS and Quality of Life providers
1110	BASOPS and training (Range Control)
1110	BASOPS: Directorates of Public Works and Logistics
1110	Mostly BASOPS now
1110	Post Overhead, Service Providers
1110	Quality of Life Services
1120	BUDGETING - WE OUR THE COMMAND BUDGET OFFICE RESPONSIBLE FOR THE OVERALL FORMULATION AND EXECUTION OF THE OMA PROGRAM/BUDGET.
1120	Analysis of standard cost reports/ application programming for recurring command requirements covered by standard reports.
1120	Army Computer needs
1120	Business Practices, GPRA, GMRA, CFO, NPR, unit cost
1120	Case Management
1120	DFAS liaison, financial reconciliation and statements, finance and acctng related issues such as NULO's and delinquent receivable and payable
1120	Management Studies, A-76 Commercial Activity Reviews, Manpower Controls & DOC, Internal Mgmt Controls, Train Reservists, Provide Power Projection Platform, Provide BASOPS to on and off Post customers
1120	operating budget, processing all incoming funds, budget for OMA and civil works
1120	Our office develops cost estimating relationships and performs other cost research, develops cost estimates, validates cost estimates & economic analyses, & monitors contracts to include developing estimates at completion.
1130	Course Costing
1130	First, the school houses, then BASOPs activities.
1130	Garrison, costing
1140	Equip the warfighter
1140	I work for the office of the Director, G4/Directorate of Logistics. We provide Logistics Support for Ft. Knox and 5-9 area.
1140	Letterkenny AD, a \$200M DBOF depot performing depot maintenance on PATRIOT, all DOD Tactical missiles, towed and self propelled artillery, ammo storage on a 19,000 acre installation
1140	Our depot mission is basically to overhaul and rebuild light track vehicles and ammunition maintenance and storage.
1140	Production
1140	
1170	to assist our installations in implementing as most effectively and economically meets the needs of this command.
1170	Many areas, we are directed by the CG and others to investigate & provide advice for correction.
1170	Service Organization

Code	Variable 34 - Continued Application Categories
1190	AFTER 1 SEP, WE BECOME A SUBCOMMAND OF FORSCOM. AT THAT TIME WE WILL PERFORM O&M INFORMATION SERVICES. WE LOSE ALL PROCUREMENT AND MOST ENGINEERING RESPONSIBILITIES.
1190	None
1190	none planned
1190	
1190	None planned that I know of
1190	None, zero, zip, nada! 0
1190	Not planned, but if we ever do: Ceremonial Support, Contingency Operations, BASOPS
1190	



Code	Variable 35 Good Categories
1110	All expectations at this time, but installation management seems very promising
1110	Base operations areas and the cost of supporting tenants at an installation. W/O question, this is the 1st place to go and needs done so we do away with this incremental funding concept in ISSAs.
1110	BASOPS and maintenance.
1110	BASOPS could be given leadership interest
1110	BASOPS seems to be the best place to start.
1110	BASOPS: Logistics, DOC, Personnel, Lawyers, Internal Review
1110	Forwarded the survey to somebody who might care.. DPW
1110	GAE area is about the only area where ABC is a good idea, (about 28% of our Ops)
1110	Garrison Activities
1110	Garrison Support
1110	In general, the civil works arena is a very good area for ABC principles to be applied
1110	Installation Processing
1110	Logistics and Public Works Service Providers
1110	Quality of Life (like Military Child Care & gyms) and BASOPS
1110	Quality of Life Services
1120	Academic
1120	In the school house and Base Operations
1130	Computer Services, but note that DISA has taken ownership, Army is not in the megacenter business any longer
1130	Our mission area was an excellent application, but that mission is leaving
1140	Contract Performance
1140	IDEF studies, then SW Development and maintenance, financial mgt support
1140	Production Items
1150	Health care to military beneficiaries (trainees, active duty, retired, dependents)
1150	Medical Services
1160	Non Appropriated Funds Operations. This response is similar to other NAF inquiries, this one is the best.
1170	Possibly Space Cmd
1170	Reimbursable work, even though the concept is flawed
1170	Services, especially those which have equivalents in the for-profit sector
1170	TECOM, for services provided our direct and Reimbursable programs
1170	Where true costs need to be known. No one knows what services really cost. True is little is known about the true cost of almost anything we go. The problem is conceptual in nature, programs vs. services/activities.
1180	No specific area, as tasks come and ABC would apply
1180	Our whole organization is the type where we can really benefit from ABC
1180	Those places where the fruit is "closest to the ground"
1180	Total YPG production (basic mission)

Code	Variable 35 - Continued Good Categories
1180	We go where we are asked to come
1190	
1190	unknown
1190	
1190	unknown
1190	We have too many studies saying ABC is a good idea. If sr. leadership does not support, we would have to do other priorities
1990	KEY: Management has to believe ABC is and can be an effective tool. Initial gathering of valid, accurate data is a must. Briefing all personnel, the entire workforce I highly recommended prior to implementation.

Code	Variable 36 Poor Categories
1110	Combat unit, OCONUS, always in the field, and maintaining readiness has priority over costs. (Data entry would be a problem too....)
1110	Combat units
1110	Combat Units do not seem to fit the ABC mode.
1110	Combat Units have not been considered.
1110	mission costing doesn't seem to fit right now, too much work to be worth it, differences with other MACOMs ways of doing business would cause problems
1110	Not Arctic Combat Units
1120	Data intensive areas which have no automated data entry
1120	Those places where the fruit is difficult to harvest
1120	Too early to identify, going after the obvious service providers first.
1130	Foreign Military Sales
1140	Military Payroll
1140	Not at Army Security Assistance Command
1140	Strange: I have contacted several people in our organization believing that they would be familiar with ABC, but I had no luck. Nobody seems to know anything about ABC. Could it be that we are a nonappropriated entity and therefore do not deal with ABC
1140	Strange: Works in "Military Accounting Branch", and refers ABC questions to others
1150	All areas flounder if there is no interest by management
1150	Any area where management can be fooled by "snake oil salesmen".
1150	Research Laboratories
1150	Those areas without DBOF type work, or without organic modeling capability
1150	Where commanders don't expect management information
1150	
1190	Most
1190	none identified yet, still in the implementation
1190	none in our area
1190	None mentioned
1190	unknown
1190	unknown
1190	

Code	Variable 37 Overall Army Wide ABC Use
1110	A tool is a tool, if the commander sees value in that tool, use the tool
1120	BASOPS
1120	BASOPS
1120	BASOPS
1120	BASOPS seems to be the best answer
1120	Computer and Phone services
1120	Engineer activities
1120	Health care to military beneficiaries (trainees, active duty, retired, dependents)
1120	Proving Ground missions
1120	Same model used in other commands
1120	Service organizations which provide for warfighters
1120	Service Providers, MACOM "overhead" agencies
1120	This effort is a corps wide initiative. ABC is seen as something the Army as a whole can adopt as a way of doing business.
1120	Unit Costing problems
1140	All type of organizations need to become ABC literate.
1140	Good idea for service providers
1140	Good idea that is coming of age
1140	Overall, it can be used many places. I like the concept, I don't have to change my mind.
1140	With DFAS coming on line with software, that might standardize ABC software for the Army.
1150	
1190	Let's see what the jury has to say about 18th AB implementation
1190	Lots of promises...
1190	unknown
1190	
1190	Unknown
1990	

Code	Variable 38 Level of ABC Involvement
1110	A
1110	A
1110	A
1110	A
1110	A
1110	A - Very much of a help, and future POC
1110	A in involvement, F in enthusiasm
1110	A++ I believe Larry a major player in ABC implementation at Ft Campbell
1110	A+++ Extremely excited. Many emails sent to find status of this thesis and to find preliminary findings. I was invited to come on a site visit.
1110	A, But not a freedom to talk about it
1110	A: But a contractor
1110	A: Concerned about keeping up with the sister units, my guess too many budget cut drills and they want to be at least equally armed
1110	A: Interested but seems overwhelmed about the task of implementation
1110	A: respondent very discouraged. They had wanted to be a pioneer in ABC but it floundered, not because ABC is a lousy idea, but because of other priorities within the sr leadership.
1110	A: Sold on the benefits, but understands it not a silver bullet
1110	A: this is a fully implemented ABC activity
1110	A: Unsolicited Response
1110	A: Using ABC for tasking, not for pure cost accounting.
1110	A: Very Excited
1110	A: very excited on how ABC will transform their accounting needs
1110	A: Very good Answer, especially in training
1110	A: very honest and good answers
1110	A: Would champion ABC if he had the tools and ability to select his workforce.
1120	B
1120	B
1120	B
1120	B
1120	B
1120	B
1120	B
1120	B
1120	B
1120	B
1120	B
1120	B
1120	B
1120	B - Member of the Functional Working Group
1120	B, candid responses
1120	B: "we have nothing to contribute to ABC"
1120	B: But got tired half way thru the survey....
1120	B: Deputy Chief of Staff for Resource Mgt (DCSRM) has one small area it manages
1120	B: Good "NO" survey
1120	B: Not much enthusiasm left anywhere, just trying to survive the RIFs and relocations

Code	Variable 38 - Continued	Level of ABC Involvement
1120	B: Not sure	
1120	B: Pilot Test site for "NO ABC"	
1120	B: This guy is looking out for his commander	
1120	B: very curious	
1120		
1130	C	
1130	C	
1130	C: He did forward to a person who does know, plus left a note. Asked to be taken off of the ABC mailing list	
1130	C: Helpful, but unaware of any ABC. Needed an explanation about ABC	
1130	C: Interested in our results	
1130	C: Interested in our results	
1130	C: Interested in our results, Wants to help	
1130	C: Knows about it, but reorganizations have turned everything upside down	
1130	C: New on the job, still learning	
1130	C: Wasn't sure what ABC was, wanted our definition	
1140	Little Success... Still in early stages of ABC implementation within the AMC community. It may be a long time before ABC is a "way of life" at IEA	
1140	Unknown	
1140	We work on ABC when we can find time, other priorities come first	
1150	D	
1150	D	
1150	D	
1150	D	
1150	D	
1150	D	
1150	D	
1150	D	
1150	D	
1150	D	
1150	D	
1150	D, they are stuck with existing non-ABC cost accounting software. (stuck is not derogatory, just a condition)	
1150	D: ABC went to sleep after the reorganization and staff cuts	
1150	D: At least he wrote back and said he didn't know	
1150	D: Don't know of any native ABC initiatives, only other places.	
1150	D: He was knowledgeable of ABC and offered references, no ABC in his organization	
1150		
1160	D: passed on the message	
1160	F	
1160	F	
1160	F	
1160	F	
1160	F	
1160	F	

Code	Variable 38 - Continued	Level of ABC Involvement
1160	F	
1160	F	
1160	F	
1160	F	
1160	F, strange	
1160	F: But know what it was	
1160	F: Never heard of ABC, probably ABC's are used at the US Army Recruiting Command (ARC) level	
1160	F: No ABC here	
1160	F: No ABC, and emphasized not Army (Services Fort Gordon)	
1160	F: No involvement	
1160	F: No Plans	
1160	F: No Plans	
1160	F: None	
2000	Z - Not mentioned in E-Mail Response	
2000	Z - Not mentioned in E-Mail Response	
2000	Z - Not mentioned in E-Mail Response	
2000	Z - Not mentioned in E-Mail Response	





Code	Variable 39 - Continued	Percent of Budget in ABC
1110	0%	
1110		
1110	0%	
1110	0%	
1110	0%	
1110	0%	
1110	0%	
1110	0%	
1110	0%	
1110	0% - They reported a success story from a sub unit, one time cost study, not a recurring way of doing business	
1110	0% AFTER 1 SEP 96 WE LOSE ALL DBOF RESPONSIBILITIES	
1110	0% The reason being, we have only had ABC in use since April 96 and it currently includes only 9 months of data for FY 96.	
1110	0%, but some FFS type activity going on	
1110	0%, but this will be changing over the next six months	
1110	0%, no plans to implement until someone has had success with it	
1110	0, but will change in the next six months	
1110	Budget not involved, it was a cost accounting add-on for management 0%	
1110	None, zero, zip, nada! 0	
1110	Starting	
1120	20%	
1120	20%	
1120	28%	
1120	"not that involved, but our budget office is"	
1120	10% - Service Based Costing, Prelim Phase	
1120	20% , some pilot projects	
1120	Cost Accounting, with budget implications.	
1120	Growing	
1120	Initial progress	
1120	Not Budget, was used for what if drills	
1120	Only in service providers, the MACOM's budget is primarily war fighters and salaries	
1120	Some	
1120	Some	
1120	Some	
1120	Some	
1120		
1120	Some starting	
1120	Some, hard to say, not a way of life, but methodology for analysis	
1120	Unknown, assume some because their office develops models	
1120	unknown, but some	
1120	Unknown, most likely no	
1120	very, very little	
1120	We don't, but we know many who we have assisted	
1130	50%	
1130	99%	
1130	80% of the function it manages (DS/GS Maintenance)	

Code	Variable 39 - Continued	Percent of Budget in ABC
1130	ABC principles yes 80%, ABC 0%	
1130	Lots, but he is in position to give an answer	
1130	Most	
1130	Quite a bit, managerial accounting applications	
1130	Quite a bit, none formally	
1130	Very, but in cost accounting, not budget	
1190		
1190	unknown	
1190	unknown	
1190	unknown	



Code	Variable 40- Continued	Percent of Command in ABC
1110	0%	
1110	0%	
1110		
1110	0%	
1110	0%	
1110	0%	
1110	0%	
1110	0%	
1110	0%	
1110	0%	
1110	0 - ask again in 6 months	
1110	0% - They reported a success story from a sub unit, one time cost study, not a recurring way of doing business	
1110	0%, no plans to implement until someone has had success with it	
1110	Implementation has grounded down to 0%	
1110	None	
1110	We are an agency, does not apply	
1120	20%	
1120	20%	
1120	20%	
1120	28%	
1120	"not that involved, but our budget office is"	
1120	10% - Service Based Costing, Prelim Phase	
1120	10%, principles of ABC are imbedded in many aspects of cost & budget analysis	
1120	2%, but growing quickly.	
1120	33% or 1 of 3 divisions.	
1120	ABC is the methodology used to assess value activities	
1120	Growing	
1120	Hard to estimate	
1120	In the "production" and "services sector" of medical operations	
1120	Initial progress	
1120	Just selected areas	
1120	Less than 5% of the command budget	
1120	Small	
1120	Some	
1120	Some	
1120	Some	
1120	Some initiatives starting	
1120	Starting	
1120	very, very little	
1120	Was just studies, not a continuous involvement	
1130	99%	
1130	ABC principles yes 80%, ABC 0%	
1130	Lots, but he is in position to give an answer	
1130	Most	
1130	Most all of what we do is subject to cost accounting scrutiny	
1130	Quite a bit	

Code	Variable 40- Continued	Percent of Command in ABC
1190		
1190	unknown	
1190	unknown	
1190	Unknown	
1190	unknown	
1190		
1190	Unknown, assume some because their office develops models	
1190	unknown, but some	
1190	Unknown, most likely no	

Code	Variable 41 ABC Cost
1110	Implementation costs have been long "sunk"
1110	Implementation is long "sunk", all home grown, minimal costs
1110	minimal, as compared to contractor and COTS software
1110	minimal, home grown
1110	Some, contract involved
1120	(Unofficial, not from FORSCOM source, buy approx \$3M)
1120	
1120	Large command commitment, cost of consulting and implementation contract not given.
1150	As a taxpayer, I am against reimbursable accounts because they are very time consuming and an unnecessary overhead (data capture, paper reporting, data entry, bill generation, bill processing, etc., and only steals capped resources from real mission work.
1150	Cannot see ABC paying for itself, at least not from a grassroots approach
1150	Interview: we are very perplexed over the dollars spent at FORSCOM, and what they are buying. Our experience with vendors leads us to be cautious, with an eye out for the hook used for follow on contracts
1150	Less then the benefits received
1160	N/A
1160	none, we are not really doing any ABC
1160	Nothing extra for what we are doing.
2120	No Answered - Sensitive area, from other sources we have heard \$3M
2120	Y - Measurement Questions supporting variable not answered, maybe too sensitive
2120	Y - Measurement Questions supporting variable not answered, maybe too sensitive
2120	Y - Measurement Questions supporting variable not answered, maybe too sensitive

Code	Variable 42 Contract Support
1110	All past studies have been done by private consultants. The army has very little experience or training in doing ABC.
1110	Baldrige Award Team
1110	had 3 studies completed in support areas.
1110	Massive contract coming
1110	minimal, we have studied the problem to death
1110	Not given, Survey was responded to prior to the letting of the contract, think ABM was selected.
1110	Quite heavy at first, no data given
1120	AFIT
1120	Internal to Army: AAA
1120	Office of Economic & Manpower Analysis
1120	Rand Corp and the Arroyo Center
1120	The MACOM provided everything they wanted us to have
1120	USAAA is in support of ABC implementation
1120	Will not use contractors
1150	Does not apply
1150	none
1150	None
1150	none
1150	Only knew of others, did not apply to his agency
1950	Bias Input: Coming from an unsolicited survey from the contractor
1950	Removed for bias: Possible contractor self promotion

Code	Variable 43 Contractor Commitment
1110	All past studies have been done by private consultants. The army has very little experience or training in doing ABC.
1110	Snake Oil.....
1110	Studies
1110	We avoid them
1120	Subjective: Seems to have followed thru well
1120	The refereed to others, i.e. G8 who are now heavily involved. Their office now longer has consultants and contractors working ABC type issues
1120	
1120	They did their thing, left a user's guide and let us run with it.
1120	Very strong
1910	Expect Large Contractor contribution to ABC at FORSCOM
1950	Bias Input: Coming from an unsolicited survey from the contractor
1950	Does not apply
1950	does not apply
1950	NA
1950	No contractor involvement
1950	No contractors
1950	Removed for bias: Possible contractor self promotion
2120	Not answered, Survey was answered prior to letting of contract, assume extremely heavy contractor commitment.



Code	Variable 44 Government Resources
1110	ABC implementation is all govt
1110	All
1110	All
1110	All
1110	All
1110	All
1110	All resources are organic to our ABC operations
1110	All, (I think Office of Economic and Manpower Analysis (OEMA) is a govt activity at West Point)
1110	Completely home grown
1110	Consultants, Very involved in ABC, 12 action officers committed to traveling and working on cost accounting systems which promote ABC
1110	Contractor has done his job and left, every thing is now on govt time
1110	Interview: We intend to use organic assets in implementing ABC.
1110	Just what I've put into it.
1110	Looked like complete govt resourcing for their efforts
1110	Much of my time trying to customize reports for users.
1110	Preferred method is to maximize govt personnel involved, ownership maximization
1110	Seems to be a total "in-house" initiative
1110	We had completely grown our own systems.
1120	DOD has ABC references on the WWW
1120	Staff of 3 + part timers devoted to ABC implementation
1150	Data collection is a serious problem. (Note: I wonder is budget cuts have reduced their ability to collect data)
1150	Too much overhead, cannot justify its own expenditures in terms of savings
1160	Software all Vendor provided
1160	Teaming with contractor to implement ABC
1950	Does not apply

## Appendix F - Unit List and Response Analysis

Survey respondents were categorized into three types. Type "A" response was a full survey response containing answers with detailed insight regardless of whether ABC was implemented. Type "B" response was a survey response, but contained only sporadic responses. Type "C" responses were those where only the preliminary survey questions were answered.

Two additional categories were given to those non-survey respondents. For those who replied, in order to be counted as a response there had to be opinion given and some type of answer which would contribute to answering the research questions. A response of deferring the survey to someone else did not count as a respondent. Two types of opinion non-survey responses were received. Type "D" was assigned to those who responded, but contributed only to where not ABC was being used. A typical "D" response was a one line electronic mail responses like "we have now knowledge of anybody using ABC within our agency." The "E" response went past a "D" response in the fact that their response contributed to the definition of a research variable. These responses offered opinion concerning ABC which help answer one or more of the investigative questions or gave historical accounts of ABC within the Army.

The table on the next page describes who responded to our surveys. The overall return rate was two out of every three, with about an even split of the replies being surveys and the other "opinion electronic mail." The percent of responses categorized by MACOM is intended to give some indication of ABC use within the command. The percent returned by each command is not adjusted for the size of the command.

# RESPONSE ANALYSIS: SURVEY #1

COMMAND	Total	YES	NO	CTR		Best	Partial	Minimal	Minimal	Partial	Percent	
						"A"	"B"	"C"	"D"	"E"		
						ACTUAL SURVEYS RETURNED			OPINION EMAIL			
AAA	6	4	2	0		1	0	0	2	3	5.9%	
ACE	4	2	2	0		1	0	1	1	1	4.0%	
AMC	25	13	10	2		6	8	1	5	5	24.8%	
FINCOM	1	0	1	0		0	0	0	1	0	1.0%	
FORSCOM	11	5	5	1		2	1	0	4	4	10.9%	
HQDA	10	1	9	0		1	1	4	2	2	9.9%	
INSCOM	1	0	1	0		0	0	0	1	0	1.0%	
ISC	4	1	3	0		0	2	0	0	2	4.0%	
MDW	2	0	2	0		0	1	0	1	0	2.0%	
MEDCOM	8	1	7	0		0	2	1	3	2	7.9%	
NATO	3	1	2	0		0	0	0	2	1	3.0%	
NGB	2	0	2	0		1	0	0	1	0	2.0%	
PACCOM	3	0	3	0		1	0	0	1	1	3.0%	
SPACE	2	0	2	0		0	0	1	0	1	2.0%	
TRADOC	19	7	12	0		5	1	2	5	6	18.8%	
OTHER	0	0	0	0		0	0	0	0	0	0.0%	
Total						18	16	10	29	28		
						Freq Yes	13	6	0	6	12	37
						No	5	10	10	23	13	61
						Contractor	0	0	0	0	3	3
						% Yes	72.2%	37.5%	0.0%	20.7%	42.9%	36.6%
						No	27.8%	62.5%	100.0%	79.3%	46.4%	60.4%
						Contractor	0.0%	0.0%	0.0%	0.0%	10.7%	3.0%

SURVEYS SENT OUT:	173
FAILED MAIL:	23
SURVEYS RECEIVED IN FIELD:	150
UNSOLICITED RESPONSES:	3
BASIS FOR RESPONSE RATE:	153

Type of Response	RESPONSE CATEGORIES					TOTAL
	"A"	"B"	"C"	"D"	"E"	
	ACTUAL SURVEYS RETURNED			OPINION EMAIL		
Percent of Returned	18%	16%	10%	29%	28%	100.0%
Percent of Sent	12%	10%	7%	19%	18%	66.0%

Returned Surveys: 29% EMAIL: 37%

## RESPONSE ANALYSIS: SURVEY #2

Second Survey Response	Who	Out	In	Percent
Survey Sent Out		14	3	21.42%
Fax Reply	AMC	10	1	7.14 %
Phone Reply	HQDA	1	1	7.14 %
Electronic Mail Reply	FORSCOM	1	1	7.14 %

# US Army Installation Listing

Responses by MACOM  
e

From Rand McNally Military Atlas

Installations + MACOM Com Total Total  
178 101 294

Survey

State/Country	City	Key	Name	Reply	POC	Unit	MACOM
Colorado	Colorado Springs	COAB	Ft. Carson	1	1		AAA
Georgia	Savannah	GAAA	Ft. Stewart	1	1		AAA
Missouri	Rolla	MOAB	Ft. Leonard Wood Engr Ctr	1	1	USAAA	AAA
New York	Watertown	NYAC	Ft. Drum	1	1		AAA
Ohio	Cleveland	OHAB	DFAS-Cleveland	1	3		AAA
Virginia	Newport News	VADC	Ft. Eustis		3		AAA
Virginia	Falls Church	VANA	Adjacent Massiff Bldg	1	1	HQ AAA	AAA
				6	11		
Alabama	Huntsville	ALAA	Redstone Arsenal	2	2	PEOMD	AMC
Alabama	Anniston	ALC	Anniston Army Depot		1		AMC
Arizona	Yuma	AZB	Yuma Proving Grounds	1	1		AMC
California	San Luis	CAB	Ft. Hunter Liggett	1	1		AMC
Illinois	Rock Island	ILAB	Rock Island Arsenal	1	2	IEA	AMC
Maryland	Aberdeen	MDA	Aberdeen Proving Ground	1	3	TECOM	AMC
Michigan	Detroit	MIA	Detroit, Warren, Lima OH	5	7	TACOM	AMC
Missouri	St Louis	MOB	PEOAVN	1	4	AVCOM	AMC
New Jersey	Newark	NJA	Picatinny Arsenal	1	7	PEO	AMC
New Jersey	New Brunswick	NJBA	Ft. Monmouth	1	5	CECOM	AMC
New Jersey	New Brunswick	NJBB	Ft. Monmouth	1	1	PEOCOM	AMC
New Jersey	New Brunswick	NJBD	Ft. Monmouth		1	Post HQ	AMC
New Jersey	New Brunswick	NJBE	Ft. Monmouth		1	SWD	AMC
New Jersey	New Brunswick	NJBF	Ft. Monmouth	1	1	DefMess	AMC
New Mexico	Las Cruces	NMAA	White Sands Missile Range				AMC
Pennsylvania	Chambersburg	PAC	Chambersburg		1	Indtl Ops	AMC
Pennsylvania	Harrisburg	PAD	Letterkenny AD	1	1		AMC
Pennsylvania	Tobyhanna	PAE	Tobyhanna AD		1		AMC
Texas	Corpus Christi	TXAC	Corpus Christi Army Depot	1	1		AMC
Utah	Salt Lake City	UTA	Dugway Proving Ground		1		AMC
Utah	Salt Lake City	UTB	Tooele Army Depot		1		AMC
Virginia	Manassas	VAG	Vint Hill Farms		1	PEOIEW	AMC
Virginia	Alexandria	VALA	HQ AMC	1	10	HQ	AMC
Virginia	Contractor	VALB	HQ AMC	1	3	ASAC	AMC
MIX		ZZA	Army Research Labs		8	ARL	AMC
MIX		ZZD	Natick	2	3		AMC
MIX		ZZE	Red River AD	2	2		AMC
MIX	Contractor	ZZE	Waterlivet	1	2		AMC
				25	72		
Alabama	Anniston	ALBC	Ft. McClellan		1		DFAS
California	San Bernardino	CAAA	Ft. Irwin (National Training Center)		1		DFAS

Colorado	Denver	COBB	Fitzsimons Army Medical		1		DFAS
Kansas	Topeka	KSA	Ft. Riley		1		DFAS
Kansas	Kansas City	KSBB	Ft. Leavenworth		1		DFAS
Kentucky	Louisville	KYCD	Ft. Knox		1		DFAS
Maryland	Baltimore	MDC	Ft. George G Meade		1		DFAS
Missouri	Rolla	MOAC	Ft. Leonard Wood Engr		1		DFAS
New Jersey	New Brunswick	NJBC	Ft. Monmouth		1		DFAS
New Mexico	Las Cruces	NMAB	White Sands Missile Rng				DFAS
Texas	San Antonio	TXBB	Ft. Sam Houston		1		DFAS
Hawaii	Honolulu	HIA	Ft. Shaftner	1	5		FINCOM
				1	15		
Alaska	Anchorage	AKB	Ft. Richardson	1	1	Post HQ	FORSCOM
Alabama	Anniston	ALBB	Ft. McClellan		2		FORSCOM
Colorado	Colorado Springs	COAA	Ft. Carson	1	1	4th MID	FORSCOM
DC	Washington D.C.	DCA	Ft. Lesley J. McNair		1		FORSCOM
Georgia	Savannah	GAAB	Ft. Stewart	1	2	18/24th	FORSCOM
Georgia	Savannah	GAAC	Ft. Stewart	1	2	Post HQ	FORSCOM
Georgia	Atlanta	GABA	Ft. McPherson	1	2	Post HQ	FORSCOM
Georgia	Atlanta	GABB	Ft. McPherson		1	IR	FORSCOM
Georgia	Atlanta	GABC	Ft. McPherson		1	Renventn	FORSCOM
Kansas	Topeka	KSA	Ft. Riley		1	1st MDv	FORSCOM
Kentucky	Clarksville	KYAA	Ft. Campbell	1	1	101st AD	FORSCOM
Kentucky	Clarksville	KYAB	Ft. Campbell	1	2	Post HQ	FORSCOM
Lousiana	Alexandria	LAAA	Ft. Polk	1	1		FORSCOM
N Carolina	Fayetteville	NCAA	Ft. Bragg	1	3	82nd AD	FORSCOM
New York	Watertown	NYAB	Ft. Drum		1	10th ID	FORSCOM
Panama	Canal Zone	PCZA	Ft. Clayton		1	USARSO	FORSCOM
S Carolina	Columbia	SCAB	Ft. Jackson	1	1		FORSCOM
Texas	Killeen	TXAB	Ft. Hood		1	2nd AD	FORSCOM
Texas	San Antonio	TXBA	Ft. Sam Houston		1		FORSCOM
Washington	Tacoma	WAAA	Ft. Lewis		1		FORSCOM
Wisconsin	Tomah	WIA	Ft. McCoy		1		FORSCOM
	Contractors			1	8		FORSCOM
				11	36		
Georgia	Atlanta	GAC	Ft. Gillem		1	CIDC	HQDA
N Carolina	Fayetteville	NCAB	Ft. Bragg	1	1	CIDC	HQDA
Ohio	Cleveland	OHAA	DFAS-Cleveland		4	(FM&C)	HQDA
Virginia	Washington D.C.	VAAB	Pentagon	2	10	NGB	HQDA
Virginia	Washington D.C.	VABB	Ft. Belvoir	1	2	AAESA	HQDA
Virginia	Washington D.C.	VABE	Ft. Belvoir	1	1	PEO	HQDA
Virginia	Washington D.C.	VABG	Ft. Belvoir		1	CIDC	HQDA
Virginia	Alexandria	VAMB	Hoffman Bldg	1	1	NAF	HQDA
Virginia	Alexandria	VAMC	Hoffman Bldg		1	AAPPSO	HQDA
Virginia	Falls Church	VANA	Massiff Bldg	1	1	CIDC	HQDA
Virginia	Falls Church	VANB	Massiff Bldg		1	MTMC	HQDA
Washington	Tacoma	WAAB	Ft. Lewis	1	1	CIDC	HQDA
New Jersey	New York	NJD	Bayonne Mil Ocean Term	1	1	MTMC	HQDA
MIX		ZZC	HQ Mil Trnsp Cmd	1	3	MTMC	HQDA
				10	29		

Virginia	Washington D.C.	VABD	Ft. Belvoir	1	1	HQ	INSCOM
				1	1		
Arizona	Sierra Vista	AZAA	Ft. Huachuca	1	11		ISC
Illinois	Rock Island	ILAA	Rock Island Arsenal	1	1	MegaCtr	ISC
Maryland	Hagerstown	MDD	Ft. Ritchie	1	1		ISC
Virginia	Washington D.C.	VABC	Ft. Belvoir	1	1	ISSC	ISC
Virginia	Radford	VAO	RDA		1	SARDA	ISC
				4	15		
DC	Washington D.C.	DCA	Ft. Lesley J. McNair	1	1		MDW
Virginia	Alexandria	VAMD	Hoffman Bldg	1	1	TAPC-IR	MDW
				2	2		
Alabama	Huntsville	ALAB	Redstone Arsenal		1	MEDCOM M	MEDCOM
Arizona	Sierra Vista	AZAC	Ft. Huachuca		1		MEDCOM
California	San Bernardino	CAAB	Ft. Irwin (National Training Center)		1		MEDCOM
Colorado	Denver	COBA	Fitzsimons Army Med Ctr	1	1		MEDCOM
DC	Washington D.C.	DCB	Walter Reed Army Med Ctr	1	5		MEDCOM
Georgia	Columbus	GAEA	Ft. Benning		1		MEDCOM
Kentucky	Louisville	KYCA	Ft. Knox	1	3		MEDCOM
Louisiana	Alexandria	LAAB	Ft. Polk	1	2		MEDCOM
Maryland	Fredrick	MDB	Ft. Detrick	1	4		MEDCOM
Oklahoma	Wichita Falls	OKA	Ft. Sill		1		MEDCOM
South Carolina	Columbia	SCAC	Ft. Jackson	1	1		MEDCOM
Texas	Killeen	TXAA	Ft. Hood		1		MEDCOM
Texas	San Antonio	TXBC	Ft. Sam Houston	1	2		MEDCOM
Virginia	Newport News	VADB	Ft. Eustis		1		MEDCOM
MIX		ZZB	MEDCOM Sites	1	10		MEDCOM
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Pennsylvania	Harrisburg	PAB	Ft. Indiantown Gap	1	1		NGB
Virginia	Washington D.C.	VAAA	Pentagon	1	5	HQ	NGB
Virginia	Washington D.C.	VABH	Ft. Belvoir / Gateway		2	PMRCAS	NGB
				2	8		
Hawaii	Honolulu	HIE	Ft. Shafter	1	2		PACCOM
Japan		JAPA	Camp Zama		1		PACCOM
Korea	Taegu	ROKG	Taegu Military Community		1		PACCOM
Korea	Seoul	ROKH	US Army Garrison, Seoul	2	3		PACCOM
				3	7		
Kentucky	Louisville	KYCB	Ft. Knox		1	USARC	PERSCOM
Virginia	Alexandria	VAMA	Hoffman Bldg		1	HQ	PERSCOM
Illinois	Chicago	ILB	Ft. Sheridan				RECRUIT
Alabama	Huntsville	ALAC	Near Redstone Arsenal	1	1	SPACE	SPACE
Colorado	Colorado Springs	COC	US Space Cmd	1	1		SPACE
				2	4		
Alabama	Anniston	ALBA	Ft. McClellan		1		TRADOC
Alabama	Dothan	ALD	Ft. Rucker	1	1		TRADOC
Arizona	Sierra Vista	AZAB	Ft. Huachuca	1	2		TRADOC
DC	Washington D.C.	DCA	Ft. Lesley J. McNair	1	3		TRADOC

Georgia	Augusta	GAD	Ft. Gordon/ Signal Center	1	1		TRADOC
Georgia	Columbus	GAEA	Ft. Benning	1	1		TRADOC
Kansas	Kansas City	KSBA	Ft. Leavenworth	1	2		TRADOC
Kentucky	Louisville	KYCC	Ft. Knox	1	2		TRADOC
Missouri	Rolla	MOAA	Ft. Leonard Wood	1	1		TRADOC
New Jersey	Trenton	NJC	Ft. Dix	1			TRADOC
New York	Syracuse	NYAA	Ft. Drum	1	1		TRADOC
New York	West Point	NYE	US Military Academy	1	2	USMA	TRADOC
South Carolina	Columbia	SCAA	Ft. Jackson		1		TRADOC
Texas	El Paso	TXCA	Ft. Bliss		1	Post	TRADOC
Texas	El Paso	TXCB	Ft. Bliss	1	2	School	TRADOC
Virginia	Washington D.C.	VABF	Ft. Belvoir	1	2	Post HQ	TRADOC
Virginia	Petersburg	VACA	Ft. Lee	1	1	Post	TRADOC
Virginia	Petersburg	VACB	Ft. Lee	1	3	ALMC	TRADOC
Virginia	Newport News	VADA	Ft. Eustis	1	1		TRADOC
Virginia	Hampton	VAEA	Ft. Monroe	1	2	Post	TRADOC
Virginia	Hampton	VAEB	Ft. Monroe	1	1		TRADOC
Virginia	Hampton	VAEC	Ft. Monroe	1	1	CRTA	TRADOC
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Virginia	Washington D.C.	VABA	Ft. Belvoir	4	10	HQ	USACE
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Europe	Belgium	EURB	NATO HQ		2	HQ	USAEUR
Europe	Heidleburg	EURC	HQ USAREUR	1	10	HQ	USAEUR
Europe	Bad Kreuznach	EURD	1AD			1st AD	USAEUR
Europe	Kaiserslautern	EURE			1		USAEUR
Europe	Giessen	EURF			1		USAEUR
Europe	Worms	EURG		1	1		USAEUR
Europe	Naples	EURH	SHAPE		1		USAEUR
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Alaska	Fairbanks	AKA	Ft. Wainwright				OTHER
Alaska	Fairbanks	AKC	Ft. Greely				OTHER
Arkansas	Fort Smith	ARA	Ft. Chaffee				OTHER
California	Monterey	CAC	Ft. Ord				OTHER
California	Monterey	CAD	Presidio of Monterey				OTHER
California	San Francisco	CAE	Presidio of San Francisco				OTHER
California	Los Angeles	CAF	Ft. MacArthur				OTHER
Connecticut		CN					OTHER
Delaware		DE					OTHER
Florida		FL					OTHER
Hawaii	Honolulu	HIAA	Schofield Barracks			25th ID	OTHER
Hawaii	Honolulu	HIAB	Schofield Barracks				OTHER
Hawaii	Honolulu	HIB	Waianae Army Rec Center				OTHER
Hawaii	Honolulu	HIC	Tripler Army Med Center				OTHER
Hawaii	Honolulu	HID	Ft. Ruger, Cannob Club				OTHER
Iowa		IA					OTHER
Idaho		ID					OTHER
Masachusetts	Boston	MAA	Ft. Devens				OTHER
Maine		ME					OTHER

Minnesota		MN					OTHER
Mississippi	Vicksburg	MSA	Waterways Exper Station				OTHER
Montana	Helena	MTA	Ft. Harrison Site				OTHER
North Dakota		ND					OTHER
Nebraska		NE					OTHER
N Hampshire		NH					OTHER
Nevada		NV					OTHER
New York	Watertown	NYB	Ft. Drum/Wheeler - Sack AAirfield				OTHER
New York	New York	NYC	Ft. Hamilton				OTHER
New York	Rochester	NYD	Seneca Army Depot				OTHER
Oregon		OR					OTHER
Pennsylvania	Harrisburg	PAA	Carlisle Barracks				OTHER
Puerto Rico	San Juan	PRA	Ft. Buchanan				OTHER
Korea		ROKA	Camp Red Cloud			2nd Inf Div	OTHER
Korea		ROKB	Camp Ames				OTHER
Korea		ROKC	Camp Carroll				OTHER
Korea		ROKD	Camp Casey				OTHER
Korea		ROKE	Camp Hialeah				OTHER
Korea		ROKF	Camp Howze				OTHER
South Dakota		SD					OTHER
Virginia	Alexandria	VAF	Cameron Station				OTHER
Virginia	Arlington	VAH	Ft. Myer				OTHER
Virginia	Fredericksburg	VAI	Ft. A P Hill				OTHER
Virginia	Richmond	VAJ	Ft. Pickett				OTHER
Virginia	Virginia Beach	VAK	Ft. Story				OTHER
Vermont		VE					OTHER
Washington	Tacoma	WAB	Madigan Army Med Center				OTHER
Washington	Seattle	WAC	Ft. Lawton				OTHER
West Virginia		WV					OTHER
Wyoming		WY					OTHER
				0	-0		



## Appendix G - Home Page

### Internet Home Page

The following pages are print outs of the home page as it appears in the NETSCAPE viewer. This home page is scheduled for installation on the CEAC network server in October 1996. Due to the dynamics of the situation, some electronic mail addresses and personnel coding will have to be adjusted. The Air Force Institute of Technology (AFIT) may withdraw its endorsement of the home page if a need is no longer determined to exist. Currently, the home page has been deactivated from the AFIT server.

### Home Page Code Listing

The last two pages of this appendix lists the source code (ABC.HTML) file of the home page. It is known that changes will have to be made to work correctly on the CEAC server.



*Welcome To*

**ARMY**

**ACTIVITY-BASED COSTING**

**(ABC) SYSTEM**

**HOME PAGE**



Have Visited Since 1 March 96

Please Sign Our Guest Book

---

---

Guest Book	What's New?	Success Stories	Current Activities
Annotated Bibliography	Policy & Regulations	Research	
Hot Links to Other ABC Sites	A Word from Our Sponsors	Questions!	

---

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☐ Guest Book

☐ What's New?

☐ Success Stories

☐ Current Activities

☐ Annotated Bibliography

[!\[\]\(c507f772dba2b921f86777f01218e570\_img.jpg\) Policy and Regulations](#)

[!\[\]\(4729e517bc6a7cd81c8025b9646574fb\_img.jpg\) Research](#)

[!\[\]\(cbe80b694ebd74fcfe136a095b608235\_img.jpg\) Hot Links to Other ABC Sites](#)

[!\[\]\(a03a7eb2f4046e1d3c76772003e549ea\_img.jpg\) A Word from Our Sponsors](#)

[!\[\]\(cbe2492b119e39e02a1dab2af4a4b296\_img.jpg\) Ask Your ABC Questions!](#)

---

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**Curator : *Mr. David Ryder & Major (ROKA) Seon-mook Lee***

**Air Force Institute of Technology**

**Last Revision : *26 August 1996***

**Comments or Questions e-mail :(by September 1996)**

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**[smlee@afit.af.mil](mailto:smlee@afit.af.mil)**

**Comments or Questions e-mail : (from October 1996)**

**[ryderd@pentagon-hqdadss.army.mil](mailto:ryderd@pentagon-hqdadss.army.mil)**

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## Annotated Bibliography

1 [!\[\]\(dfbd6b3763a6d1d9afaa974f64e2e4b5\_img.jpg\) Index to Interesting Articles](#)

• [!\[\]\(e78f798d4ea5c530c9db49e7d26e6b95\_img.jpg\) ABC Implementors' Point of Contacts](#)



## Policy and Regulations

 DOD ABC Policy

 DOD ABC Regulations



## Hot Links to Other ABC Sites


 [Library: Document Listing Sorted by Tiltle](#)

 [PC Consultants: Activity Based Costing](#)


 [Activity Based Costing](#)


 [Cost Technology](#)

 [Implementing Activity-Based Costing](#)

 [Cost Technology Home Page](#)

 [DBA: The Cost of Quality](#)

 [Activity-based Costing](#)

 [Index to Interesting Articles](#)

 [Industrial Engineering Activity\(IEA\) Homepage \(Industrial Base Advanced Technology: ABC\)](#)



## A Word from Our Sponsors



Click on box to take you to AFIT Home Page  
[Air Force Institute of Technology \(AFIT\)](#)



Click on box to take you to CEAC Home Page  
[US Army Cost Economics and Analysis Center \(CEAC\)](#)



Click on box to take you to ASA/FM&C Home Page  
[ASA\(FM&C\)](#)



## Ask Your ABC Questions!

### Category

ABC Logistics : e-mail to Terry Pohlen, AF Major, PhD,

Asst Professor of Logistics Mgt, AFIT

ABC and Cost Management in DOD : e-mail to David Christensen,

PhD, CPA, Professor of Accounting, AFIT

ABC Army Policy : e-mail to David Ryder, Army GS-13, CEAC

(after September 1996)

Research : e-mail to David Ryder, Army GS-13,

a graduate student of AFIT (by September 1996)

Research : e-mail to Maj. Seon-mook Lee, ROKArmy,

a graduate student of AFIT (by September 1996)

General Questions (Home Page) : e-mail to Maj. Seon-mook Lee,

ROKArmy, a graduate student of AFIT (by September 1996)





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ARMY ACTIVITY-BASED COSTING HOME PAGE

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<H2>ARMY <P>

ACTIVITY-BASED COSTING <P>

<I>(ABC)</I> SYSTEM<P>

HOME PAGE</STRONG><P>

</CENTER></H2>

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Have Visited Since 1 March 96</center>

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<a href="biblio.htm"> </a>

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<a href="links.htm"> </a>

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<a href="question.htm"> </a><br>

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<IMG ALIGN="bottom" SRC="redbtn.jpg"><a href="links.htm">  
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Ask Your ABC Questions!</a><P>

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<center><STRONG>Author :  
<I>Mr. David S. Ryder & Major (ROKA) Seon-mook Lee</i><P>  
Curator : <I>Mr. David Ryder & Major (ROKA) Seon-mook Lee</i><P>

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Last Revision : <I> 26 August 1996 </i><P>  
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Comments or Questions e-mail : (from October 1996)<P>  
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## Appendix H - Acronyms

### Acronyms

AAA	Army Audit Agency
ABBCM	Activity Based Budgeting, Costing, and Management
ABCWG	Activity Based Costing Working Group
ABC	Activity Based Costing
ABM	Activity Based Management
AC	Active Component
ACE	Army Corps of Engineering
AD	Active Duty
AFIT	Air Force Institute of Technology
AMC	Army Materiel Command
AMCRD	Army Materiel Command, Research and Development
AMEC	Army Management Engineering College
AMSCODES	Army Management Structure Codes
ARDEC	Armaments Research Development Engineering Center
ASA(FM&C)	Assistant Secretary of the Army for Financial Management and Controller
BASOPS	Base Operations
BBAE	Budget-Based Analysis, Europe
BPR	Business Process Re-Engineering
BRAC	Base-Realignment and Closure
CAM-I	Computer Aided Manufacturing - International
CAS	Cost Accounting Standards
CASB	Cost Accounting Standards Board
CBA	Cost Benefit Analysis
CEAC	US Army Cost and Economic Analysis Center
CFO	Chief Financial Officers

CG	Commanding General
CONUS	Continental United States
COTS	Commercial Off-The-Shelf
CPA	Certified Public Accountant
CPO	Civilian Personnel Office
CPW	Center for Public Works
DA	Department of the Army
DBOF	Defense Business Operations Fund
DCAA	Defense Contract Audit Agency
DCS	Deputy Chief of Staff
DCSRM	Deputy Chief of Staff for Resource Management
DEH	Director of Engineering and Homing
DFAS	Defense Financial Accounting Service
DLA	Defense Logistics Agency
DOC	Department of Commerce
DoD	Department of Defense
DOL	Directorate of Logistics
DPP	Direct Product Profitability
DPW	Director of Public Works
DS	Direct Support
DSMC	Defense Systems Management College
EA	Economic Analysis
FAR	Federal Acquisition Regulation
FFS	Fee for Service
FMS	Foreign Military Sales
FORSCOM	Forces Command
FWG	Functional Working Group
Ft	Fort
G&A	General and Administrative

GAO	General Accounting Officer
GS	General Support
HQ	Head Quarter
IDEF	Integrated Definition Methodology
IEA	Industrial Engineering Activity
IMA	Institute of Management Accountants
IQ	Investigative Question
IR	Internal Review
IRAC	Internal Review and Compliance
ISSA	Installation Supply Support Activity
MEA	Management Engineering Activity
MEPRS	Medical Execution, Planning, and Resource System
MDW	Military District of Washington
MQ	Management Question
NATO	North Atlantic Treaty Organization
NPR	National Performance Review
NULO	Non Liquidated Obligations
OCONUS	Outside Continental United States
OEMA	Office of Economic and Manpower Analysis
OH	Overhead
OJT	On-the-job Training
O&M	Operating and Maintenance
OPTEMPO	Operations Tempo
PBMA	Production Base Modernization Activity
PC	Personal Computer
POA	Plan of Action
POC	Point of Contact
RIA	Rock Island Arsenal
RM	Resource Management

ROI	Return on Investment
RQ	Research Question
SADARM	Search and Destroy Armor
SBA	Service Based Accounting
SBC	Service Based Costing
SIFS	Standard Industrial Fund System
SJA	Staff Judge Advocate
SSC	Standard Service Costing
SSEB	Source Selection Evaluation Board
TAACOM	Theater Army Area Command
TECOM	Test and Evaluation Command
TDA	Table of Distribution and Allowances
TOE	Table of Organization and Equipment
TQM	Total Quality Management
TRADOC	Training and Doctrine Command
USAFISA	US Army Financial Services
USARC	US Army Recruiting Command
VSP	Voluntary Support Plan
WWW	World Wide Web
YPG	Year Program Guidance

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**REPORT DOCUMENTATION PAGE**Form Approved  
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Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503

<b>1. AGENCY USE ONLY (Leave blank)</b>		<b>2. REPORT DATE</b> September 1996	<b>3. REPORT TYPE AND DATES COVERED</b> Master's Thesis	
<b>4. TITLE AND SUBTITLE</b>  A SURVEY OF ACTIVITY-BASED COSTING (ABC) PRACTICES WITHIN THE DEPARTMENT OF THE ARMY			<b>5. FUNDING NUMBERS</b>	
<b>6. AUTHOR(S)</b> Seon-Mook Lee, Major ROKArmy and David S. Ryder, GS-13, USArmy				
<b>7. PERFORMING ORGANIZATION NAMES(S) AND ADDRESS(S)</b> Air Force Institute of Technology 2950 P Street WPAFB OH 45433-7765			<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>  AFIT/GCA/LAL/96S-9	
<b>9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> The US Army Cost and Economic Analysis Center (CEAC) Address: 5611 Columbia Pike, Falls Church, VA 22041 Phone: (703) 681-3218 Email: bagbys@hqda.army.mil			<b>10. SPONSORING / MONITORING AGENCY REPORT NUMBER</b>	
<b>11. SUPPLEMENTARY NOTES</b>				
<b>12a. DISTRIBUTION / AVAILABILITY STATEMENT</b> Approved for public release; distribution unlimited			<b>12b. DISTRIBUTION CODE</b>	
<b>13. ABSTRACT (Maximum 200 Words)</b>  The purpose of this thesis is to find Activity-Based Costing (ABC) practices within the US Army, and then to use them to discover the major dimensions of ABC in the Army environment. The US Army Cost and Economic Analysis Center (CEAC) had been charged with the role of establishing policy for ABC within the Army. Wanting to base policy on successful applications, their first task is to define Army ABC, and then to find such initiatives from which to draw from.  This research found that the home of ABC is in the Army Major Commands and their subcommands. Within these commands there is much interest in ABC, but efforts are stymied by lack of policy and widespread knowledge of ABC principles. Training is perceived not as individual, but as an organizational need. Base Operations was identified as the area most suitable for ABC, while combat units the least. Overall, ABC is generally considered to be a positive tool which can be employed to help leadership better manage their operations and resources.				
<b>14. SUBJECT TERMS</b> Activity-Based Costing (ABC), Cost Management, Department of the Army, Department of Defense, Resource Management, Survey			<b>15. NUMBER OF PAGES</b> 339	
			<b>16. PRICE CODE</b>	
<b>17. SECURITY CLASSIFICATION OF REPORT</b> UNCLASSIFIED	<b>18. SECURITY CLASSIFICATION OF THIS PAGE</b> UNCLASSIFIED	<b>19. SECURITY CLASSIFICATION OF ABSTRACT</b> UNCLASSIFIED	<b>20. LIMITATION OF ABSTRACT</b> UNCLASSIFIED	

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